GLASGOW CORPORATION.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

OF THE

CITY OF GLASGOW.

1899 and 1900.

ORDERED BY THE HEALTH COMMITTEE TO BE PRINTED, 17TH JUNE, 1901.

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POPULATION.

The published returns of the 1901 census show that the population of Glasgow, on the night of the 31st March, was 760,406, exclusive of shipping, the figure for which is not yet available. But in 1891 the crews sleeping on board vessels in the harbour numbered 746, and there are reasons for thinking that this will fairly represent the present number. If we add this to the published figures we obtain a total census population of **761,152**, and the greater accuracy which results from basing annual estimates of population during intercensal years on the ascertained number of inhabited houses is illustrated by the following comparison:—

REGISTRAR-GENERAL'S ESTIMATE OF POPULATION.

To the middle of 1901, ...	753,766
Deduct one-quarter increase of year, to represent difference between this and 31st March, ...	2,449
	751,317
Census population, *plus* shipping, ...	761,152
Difference, less than census population by	9,835

ESTIMATE BASED ON INHABITED HOUSES.

Estimated population (middle of 1900),...	755,730
Estimated increase to 31st March, 1901 (taken as three-quarters of previous year), ...	6,381
	762,111
Census population, *plus* shipping, ...	761,152
Excess of estimate over census, ...	959

The census enumeration shows an increase which is equal to an annual rate during the decennium of 1·55 per cent. In my note on the estimate for 1900, I stated that the average annual rate of increase during the years 1891-99, indicated by the inhabited houses returns, was 1·6 per cent.

Reverting to the figures for the years 1899 and 1900, the Registrar-General's estimate for the middle of the former year was 733,903, and for the latter, 743,969, representing an annual rate of increase of 1·4 per cent., or for the years elapsing since the census of 1891 of 11·5 and 12·9 respectively. But the inhabited houses increased from 152,173 in 1898 to 155,416 in 1899 and 157,406 in 1900, and on this basis the population of 1899 was **747,222**, and of 1900, **755,730**, which represent an increase of 13·5 and 14·6 per cent. respectively on the 1891 census population.

In order to avoid the complexity arising from constantly recurring reference to these differing methods of estimating the populations, I have throughout this Report adhered to that which is based on the ascertained number of inhabited houses, because, under present circumstances, it affords the more accurate method of estimating the populations of the several sanitary districts. It is on these populations, and on the deaths corrected for Institutions, as afterwards explained, that the death-rates have been calculated, save, chiefly, where comparisons have been established between the rates for different towns, in which case it has been necessary to fall back on the Registrar-General's statements. These exceptions are noted in the text.

In the following Table the estimated population for each year since the census of 1891 is given:—

Year.	Registrar-General's Estimate, based on rate of increase between 1881-1891.		Estimate based on number of Inhabited Houses from return supplied by City Assessor.
	Old Glasgow, ...	565,710	
1891	Census Population.		
	Greater Glasgow, ...	659,193	
1892	669,059	... ...	667,531
1893	677,883	... ...	674,300
1894	686,820	... ...	684,148
1895	695,876	... ...	693,084
1896	705,052	... ...	703,350
1897	714,919	... ...	715,579
1898	724,349	... ...	731,675
1899	733,903	... ...	747,222
1900	743,969	... ...	755,730
Increase, 1891 to 1900,			
Number, ...	84,776	... ...	96,537
Percentage, ...	12·9	... ...	14·6

Estimated Population in each Sanitary District, Acreage, Inhabited Houses, &c.

The Tables which follow present the acreage and number of inhabited houses in each of the sanitary districts in the years 1899 and 1900, the estimated population of each based on the number of inhabited houses, with the percentage increase and decrease therein since the 1891 census, and the density of the population in each.

TABLE I.

GLASGOW.—ACREAGE, INHABITED HOUSES, ESTIMATED POPULATION, AND PERSONS PER ACRE IN EACH SANITARY DISTRICT IN 1899; ALSO THE POPULATION AND PERSONS PER ACRE AT THE CENSUS OF 1891, SHOWING THE PERCENTAGE INCREASE OR DECREASE IN THE POPULATION DURING THE INTERVENING PERIOD.

SANITARY DISTRICT	Acreage, 1899.	Inhabited Houses, 1899.	POPULATION.						Persons per Acre, including Institutions and Shipping.	
			Actual, Census 1891.	Estimated, Middle of 1899.	Decrease.	Increase.	Decrease per Cent.	Increase per Cent.	1891.	1899.
— Blythswood,	266	5,549	28,438	28,101	337	...	1·2	...	107	106
1. Exchange,	215	4,540	19,983	22,351	...	2,268	...	11·3	101	113
2. Port Dundas,	73	995	4,655	4,675	...	20	...	0·4	64	64
3. High Street and Closes, W.,	42	2,029	9,223	9,883	...	660	...	7·2	223	236
4. St. Rollox,	45	3,439	15,751	16,290	...	539	...	3·4	350	362
5. Bellgrove and Dennistoun,	1,152	16,103	62,208	75,450	...	13,242	...	21·3	55	67
6. High Street and Closes, E.,	50	1,166	5,635	5,376	259	...	4·6	...	150	142
7. Greenhead and London Road,	897	13,693	51,787	61,931	...	10,144	...	19·6	62	71
8. Barrowfield,	123	6,242	26,944	26,594	350	...	1·3	...	219	216
9. Monteith Row,	115	829	4,643	4,054	589	...	12·7	...	40	35
10. St. Andrew's Square,	22	760	4,124	3,796	328	...	8·0	...	201	200
11. Calton,	66	4,883	21,747	20,987	760	...	3·5	...	343	335
12. St. Enoch Square,	84	558	3,429	2,971	458	...	13·4	...	41	40
13. Brownfield,	11	705	3,451	3,446	5	...	0·1	...	345	340
14. Bridgegate and Wynds,	35	899	5,689	4,542	1,147	...	20·2	...	163	130
15. Woodside,	336	15,224	58,257	70,281	...	12,024	...	20·6	174	210
16. Cowcaddens,	61	3,756	16,235	16,469	...	234	...	1·4	266	278
17. Kelvinhaugh and Sandyford,	626	6,514	29,538	31,606	...	2,068	...	7·0	49	52
18. Anderston,	127	6,012	29,251	28,110	1,141	...	3·9	...	234	224
19. Kingston,	389	8,432	40,863	40,048	815	...	2·0	...	106	104
20. Laurieston,	49	1,842	8,850	8,660	190	...	2·1	...	186	184
21. Hutcheson Square,	453	15,218	63,493	68,707	...	5,214	...	8·2	140	152
22. Gorbals,	48	2,576	13,199	12,316	883	...	6·7	...	282	274
— Springburn and Rockvilla,	866	7,113	28,278	34,813	...	6,535	...	23·1	33	40
23. Govanhill,	315	4,772	17,014	22,390	...	5,376	...	31·6	54	71
24. Crosshill,	334	1,544	4,320	7,527	...	3,207	...	74·2	13	23
25. Langside and Mount Florida,	420	2,924	9,141	14,374	...	5,233	...	57·2	22	35
26. Pollokshields, E., and Strathbungo,	243	2,808	9,869	13,642	...	3,773	...	38·2	41	56
27. Pollokshields, W., and Bellahouston,	[1]1,278	948	3,538	5,763	...	2,225	...	62·9	4	5
28. Hillhead,	130	1,838	7,738	8,619	...	881	...	11·4	60	66
29. Kelvinside,	765	1,131	5,526	6,579	...	1,053	...	19·1	8	11
30. Maryhill,	1,183	6,578	16,798	32,469	...	15,671	...	93·3	15	28
31. Possilpark and Barnhill,	1,492	3,796	14,908	18,620	...	3,712	...	24·9	11	13
— Institutions and Harbour,	...	...	13,550	15,782	...	2,232	...	...	...	...
CITY,	12,311	155,416	658,073	747,222	...	89,149	...	13·5	55·5	60·7

[1] The Acreage here was increased in 1897 by the addition of Bellahouston Park and District.

TABLE 1A.

GLASGOW.—ACREAGE, INHABITED HOUSES, ESTIMATED POPULATION, AND PERSONS PER ACRE IN EACH SANITARY DISTRICT IN 1900; ALSO THE POPULATION AND PERSONS PER ACRE AT THE CENSUS OF 1891, SHOWING THE PERCENTAGE INCREASE OR DECREASE IN THE POPULATION DURING THE INTERVENING PERIOD.

SANITARY DISTRICT.	Acreage, 1900.	Inhabited Houses, 1900.	POPULATION.						Persons per Acre, including Institutions and Shipping.	
			Actual, Census 1891.	Estimated, Middle of 1900.	Decrease.	Increase.	Decrease per Cent.	Increase per Cent.	1891.	1900.
— Blythswood, ...	266	5,456	28,438	27,630	808	...	2·8	...	107	104
1. Exchange, ...	215	4,567	19,983	22,484	...	2,501	...	12·5	101	114
2. Port-Dundas, ...	73	1,145	4,655	5,380	...	725	...	15·5	64	74
3. High Street and Closes, W., ...	42	2,061	9,223	10,038	...	815	...	8·8	223	241
4. St. Rollox, ...	45	3,425	15,751	16,223	...	472	...	3·0	350	361
5. Bellgrove and Dennistoun, ...	1,327	16,596	62,208	77,760	...	15,552	...	25·0	55	59
6. High Street and Closes, E., ...	50	1,154	5,635	5,320	315	...	5·6	...	150	137
7. Greenhead and London Road, ...	897	13,864	51,787	62,704	...	10,917	...	21·1	62	71
8. Barrowfield, ...	123	6,353	26,944	27,067	...	123	...	·5	219	220
9. Monteith Row, ...	115	808	4,643	3,952	691	...	14·9	...	40	34
10. St. Andrew's Square, ...	22	764	4,124	3,816	308	...	7·5	...	201	202
11. Calton, ...	66	4,817	21,747	20,703	1,044	...	4·8	...	343	332
12. St. Enoch Square, ...	84	436	3,429	2,321	1,108	...	32·3	...	41	32
13. Brownfield, ...	11	687	3,451	3,358	93	...	2·7	...	345	332
14. Bridgegate and Wynds, ...	35	811	5,689	4,098	1,591	...	28·0	...	163	118
15. Woodside, ...	336	15,321	58,257	70,729	...	12,472	...	21·4	174	211
16. Cowcaddens, ...	61	3,860	16,235	16,925	...	690	...	4·3	266	285
17. Kelvinhaugh and Sandyford, ...	626	6,395	29,538	31,029	...	1,491	...	5·1	49	51
18. Anderston, ...	127	5,927	29,251	27,712	1,539	...	5·3	...	234	221
19. Kingston, ...	389	8,427	40,863	40,025	838	...	2·0	...	106	104
20. Laurieston, ...	49	1,787	8,850	8,401	449	...	5·0	...	186	178
21. Hutcheson Square, ...	453	15,288	63,493	69,024	...	5,531	...	8·7	140	152
22. Gorbals, ...	48	2,539	13,199	12,139	1,060	...	8·0	...	282	269
— Springburn and Rockvilla, ...	866	7,334	28,278	35,899	...	7,621	...	26·9	33	41
23. Govanhill, ...	360	5,066	17,014	23,765	...	6,751	...	39·7	54	66
24. Crosshill,...	334	1,662	4,320	8,102	...	3,782	...	87·5	13	24
25. Langside and Mount Florida, ...	420	3,149	9,141	15,478	...	6,337	...	69·3	22	38
26. Pollokshields, E., and Strathbungo,	243	2,869	9,869	13,935	...	4,066	...	41·2	41	57
27. Pollokshields, W., and Bellahouston,	1,278	975	3,538	5,926	...	2,388	...	67·5	4	5
28. Hillhead, ...	130	1,822	7,738	8,542	...	804	...	10·4	60	66
29. Kelvinside, ...	765	1,279	5,526	7,330	...	1,804	...	32·6	8	10
30. Maryhill, ...	1,183	6,795	16,798	33,535	...	16,737	...	99·6	15	29
31. Possilpark and Barnhill, ...	1,642	3,967	14,908	19,455	...	4,547	...	30·5	11	13
— Institutions and Harbour, ...	...	...	13,550	14,925	...	1,375	...	10·1	...	...
CITY, ...	[1]12,681	157,406	658,073	755,730	...	97,657	...	14·8	55·5	59·6

[1] In August, 1899, the area of the City was increased from 12,311 to 12,681 acres by additions in Districts 5, 31, and 23.

MARRIAGES.

The number of marriages registered within the City of Glasgow during the year 1899 was 7,464, representing a rate of 10·17 per 1,000 living; and during 1900, 7,506, or 10·11 per 1,000 living. These rates exceed that of any year since 1872.

The number and proportion of persons entering the married state is obtained by doubling the rates here given.

The rate for successive periods is as follows:—

GLASGOW.—MARRIAGE-RATE PER 100,000 LIVING FROM 1870.[1]

1870,	980		1881,	932		1891,	924	
1871,	940		1882,	964		1892,	914	
1872,	1,035		1883,	996	937	1893,	867	895
1873,	992	992	1884,	935		1894,	885	
1874,	1,002		1885,	856		1895,	885	
1875,	993		1886,	830		1896,	968	
1876,	986		1887,	829		1897,	966	
1877,	979		1888,	882	884	1898,	981	989
1878,	866	901	1889,	914		1899,	1,017	
1879,	822		1890,	965		1900,	1,011	
1880,	850							

BIRTHS.

The number of births registered in Glasgow during the year 1899 was 24,261, and during 1900, 24,324 which is equivalent to a birth-rate per 1,000 living of 32·468 in 1899 and 32·186 in 1900.

The birth-rate in several periods since 1871 has been as follows:—

	Glasgow.	Scotland.
1871-80, ...	36·6	34·9
1881-90, ...	36·5	32·4
1891-95, ...	33·9	30·7
1896, ...	34·1	
1897, ...	33·4	
1898, ...	33·2	
1899, ...	32·5	
1900, ...	32·2	

Average Annual Rate.

Glasgow.	Scotland.
33·1	30·6.

During the decade 1891-1900 [2] the rate for the following large towns has been as follows:—

Edinburgh, ...	27·3
Dundee, ...	29·9
Aberdeen, ...	32·5
Liverpool, ...	35·5
Manchester, ...	33·1
Birmingham, ...	33·1
London, ...	30·2

While Glasgow has the highest birth-rate among the towns in Scotland, it is exceeded by Liverpool among the English large towns quoted.

In the following Table the birth-rate for the several sanitary districts is given. It will be seen that the rate exceeded 40 per 1,000 in six districts, viz., Greenhead and London Road, Brownfield, Bridgegate and Wynds, Cowcaddens, Gorbals, and Possilpark and Springburn during 1898; in three districts, viz., High Street and Closes East, Greenhead and London Road, and Cowcaddens in 1899; and in Greenhead and London Road alone in 1900.

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[1] The rates in this Table are derived from Registrar-General's Annual Reports.

[2] This Table has been compiled from the Registrar-General's Annual Reports.

TABLE II.

GLASGOW.—BIRTH-RATE PER MILLION IN EACH SANITARY DISTRICT (EXCLUSIVE OF INSTITUTIONS AND HARBOUR) FOR SEVEN YEARS, 1891-97, AND FOR 1898, 1899, AND 1900.

SANITARY DISTRICTS.	BIRTH-RATE PER MILLION.			
	1891-97.	1898.	1899.	1900.
— Blythswood, ...	20,776	19,014	18,967	17,445
1. Exchange, ...	29,843	29,546	27,381	29,888
2. Port-Dundas, ...	38,059	36,331	39,785	38,476
3. High Street and Closes, West, ...	32,898	36,109	34,199	36,063
4. St. Rollox, ...	36,863	32,880	35,911	35,012
5. Bellgrove and Dennistoun, ...	36,279	35,500	34,209	34,362
6. High Street and Closes, East, ...	38,799	38,044	**40,178**	33,271
7. Greenhead and London Road, ...	**40,168**	**41,950**	**40,157**	**41,050**
8. Barrowfield, ...	38,803	38,363	39,745	39,790
9. Monteith Row, ...	24,551	23,288	23,680	25,557
10. St. Andrew's Square, ...	31,926	34,358	26,343	33,543
11. Calton, ...	38,520	37,491	38,452	38,497
12. St. Enoch Square, ...	30,695	31,538	19,186	22,404
13. Brownfield, ...	**40,644**	**43,427**	38,885	39,607
14. Bridgegate and Wynds, ...	36,391	**46,003**	37,208	35,627
15. Woodside, ...	33,481	33,659	32,413	29,903
16. Cowcaddens, ...	**43,962**	**45,468**	**46,390**	39,350
17. Kelvinhaugh and Sandyford, ...	25,542	24,137	23,730	24,074
18. Anderston, ...	38,608	36,279	36,359	38,070
19. Kingston, ...	29,915	28,997	27,667	28,707
20. Laurieston, ...	37,659	39,542	36,836	34,639
21. Hutcheson Square, ...	39,988	37,772	38,948	36,248
22. Gorbals, ...	38,794	**41,707**	34,752	36,823
— Springburn and Rockvilla, ...	39,819	38,793	36,481	36,826
23. Govanhill, ...	33,063	33,677	33,229	33,705
24. Crosshill, ...	15,012	13,741	19,265	17,527
25. Langside and Mount Florida,... ...	23,700	22,753	14,471	21,902
26. Pollokshields, E., and Strathbungo,	17,524	17,966	15,246	15,644
27. Pollokshields, W., and Bellahouston,	12,526	13,167	9,891	9,956
28. Hillhead, ...	13,831	12,080	9,862	12,526
29. Kelvinside, ...	14,319	10,841	9,424	14,597
30. Maryhill, ...	39,010	36,844	39,083	39,600
31. Possilpark and Barnhill, ...	**40,378**	**41,477**	39,796	38,293
CITY, ...	33,808	33,154	32,468	32,186

NATURAL INCREASE AND INCREASE BY EXCESS OF IMMIGRATION OVER EMIGRATION COMPARED.

I showed in the Report for 1898 that, of the estimated increase of population occurring between the middle of 1892 and the middle of 1898, 7·3 per cent. was to be explained by natural increase, or excess of births over deaths, leaving 2·3 per cent. to be accounted for by excess of immigration over emigration.

Extending this calculation to the middle of the year 1900, we find that the population increased by 88,199, of which 65,635, or 9·8 per cent., was due to natural increase, and 22,564, or 3·4 per cent., to excess of immigration over emigration.

The details of these changes are as follows:—

NATURAL INCREASE *v.* IMMIGRATION.

Births registered from middle of 1892 to middle of 1900, ...	188,670	
Deaths registered in same period, ...	123,035	
Balance, being excess of births over deaths, which represents the extent of the natural increase during the period.	...	65,635, or 9·8 per cent.,
Estimated increase, 1892-1900—		
Medical Officer's estimate, ...		88,199, or 13·2 per cent.
Leaving ... ... of the total estimated increase to be accounted for by immigration.		22,564, or 3·4 per cent.

DEATHS.—ALL CAUSES.

15,828 deaths from all causes were registered in Glasgow during the year 1899, and this is the number on which the Registrar-General calculates the death-rate for the year. It is subject, however, to the following correction for "institutional deaths":—

Number of deaths registered as occurring within the City, ...		15,828
To which there falls to be added—		
Deaths of Glasgow citizens in Govan Poorhouse (125) and Knightswood Hospital (14), ...		139
		15,967
And deducted—		
Deaths occurring in Glasgow (chiefly in Institutions) of persons whose usual residence is beyond city boundaries, ...		617
Leaving		15,350

properly belonging to Glasgow, and which, on the Medical Officer's estimate of the population, represent a death-rate of 20·5 per 1,000 living, as compared with 20·3 per 1,000 for 1898.

During 1900 the corresponding figures are as follows:—

Deaths registered as occurring within the City, ...		16,393
Deaths of Glasgow citizens in Govan Poorhouse (146) and Knightswood Hospital (12), ...		158
		16,551
From which deduct—		
Deaths occurring in Glasgow of persons whose residence was beyond city boundaries, ...		627
Leaving		15,924

belonging to Glasgow, which, on the Medical Officer's estimate of the population, represents a death-rate of 21·07 per 1,000 living, as compared with 20·5 in 1899, and 20·3 in 1898.

For several periods the death-rate from all causes, calculated on the inhabited house estimate of the population, and on the deaths corrected for Institutions as just explained, is as follows:—

ALL CAUSES—DEATH-RATE PER 1,000 LIVING.

1881-90, = 24·22
1891-97, = 21·91
1898, = 20·33
1899, = 20·54
1900, = 21·07
} Average annual rate = 20·647.

But in order to compare the death-rate with those of other towns, the total deaths registered, and the Registrar-General's estimate of the populations, must be taken, as in the following Table, which gives the average death-rate for the 10 years, 1890-1899:—

Glasgow, ...	**22·4**
Edinburgh, ...	19·7
Dundee, ...	20·9
Aberdeen, ...	19·5
London, ...	19·8
Liverpool, ...	25·7
Manchester, ...	24·3
Birmingham, ...	20·9
Leeds, ...	20·3
Sheffield, ...	21·4

DISTRICT DEATH-RATES.

It has just been shown that, when several periods are compared, the death-rate of Glasgow has undergone a progressive decline from 24·2 in 1881-90 to 21·9 in 1891-97, and 20·6 in 1898-1900.

These rates for the last two periods are strictly comparable, but those for 1881-90 are subject to the explanation that the inclusion of the districts added in the extension of 1891 lowered the rate for the city by diluting it with rates normally below its own average. By referring to the column for 1891-97 in the following Table, it will be seen that the highest rates in the added districts (Govanhill, Maryhill, and Possilpark and Barnhill) compare favourably with those of Blythswood, Woodside, and Kelvinhaugh and Sandyford, which are the healthiest districts of the older city, and the following Table has been prepared, to show the death-rates in the sanitary districts for each of the periods in which we have compared the average rate for the City:—

TABLE III.

GLASGOW.—DISTRICT DEATH-RATES PER THOUSAND FROM ALL CAUSES FOR THE PERIODS 1881-90, 1891-97, AND 1898-1900; ALSO FOR 1899 AND 1900.

SANITARY DISTRICTS.	1881-90.	1891-97.	1898-1900.	1899.	1900.
— Blythswood,	16·45	16·53	15·86	15·23	16·76
1. Exchange,	21·43	19·63	19·50	17·49	20·37
2. Port-Dundas,	26·88	27·39	29·55	29·09	30·85
3. High Street and Closes, W.,	29·33	29·97	28·62	29·34	30·09
4. St. Rollox,	22·65	21·68	20·67	22·90	20·16
5. Ballgrove and Dennistoun,	22·19	20·83	19·06	19·15	19·19
6. High Street and Closes, E.,	33·59	31·20	30·43	30·69	31·20
7. Greenhead and London Road,	24·91	23·30	22·00	22·20	22·49
8. Barrowfield,	28·98	26·69	25·76	26·06	26·19
9. Monteith Row,	20·85	21·97	22·50	26·89	21·76
10. St. Andrew's Square,	24·49	25·61	23·68	24·50	22·54
11. Calton,	30·26	29·64	27·79	30·11	26·71
12. St. Enoch Square,	24·33	24·86	23·53	22·89	23·27
13. Brownfield,	30·37	31·33	33·06	26·41	42·29
14. Bridgegate and Wynds,	39·54	35·67	28·72	24·88	30·01
15. Woodside,	19·61	17·85	17·63	17·77	17·67
16. Cowcaddens,	32·55	32·77	32·79	32·48	33·85
17. Kelvinhaugh and Sandyford,	16·23	14·87	14·03	13·86	14·76
18. Anderston,	27·88	26·12	25·06	24·37	24·86
19. Kingston,	20·79	20·51	19·80	19·48	21·79
20. Laurieston,	27·60	27·37	27·16	24·94	29·28
21. Hutcheson Square,	23·65	21·61	20·65	20·10	21·27
22. Gorbals,	28·26	28·91	28·89	31·75	26·94
— Springburn and Rockvilla,	22·12	20·89	18·89	18·58	18·44
23. Govanhill,	...	15·53	15·38	14·25	15·19
24. Crosshill,	...	12·28	10·52	9·96	10·98
25. Langside and Mount Florida,	...	11·30	9·82	9·32	9·63
26. Pollokshields, E., and Strathbungo,	..	10·27	9·98	9·09	10·69
27. Pollokshields, W., and Bellahouston,	..	8·85	9·33	8·50	10·97
28. Hillhead,	...	11·21	10·64	9·75	13·11
29. Kelvinside,	...	8·73	7·35	6·84	8·73
30. Maryhill,	..	17·15	15·91	14·60	16·61
31. Possilpark and Barnhill,	..	18·20	17·50	18·80	17·27
CITY,	24·22	21·91	20·64	20·54	21·07

I had occasion to point out in the Report for 1898 that in nine districts of the City the rate for 1881-90 was exceeded in the 1891-7 period. These were Blythswood, Port-Dundas, High Street and Closes West, Monteith Row, St. Andrew's Square, St. Enoch Square, Brownfield, Cowcaddens, and Gorbals. In the three years which followed (1898-1900) the average rate in four of these districts, viz., Blythswood, High Street and Closes West, St. Andrew's Square, and St. Enoch Square, was lower than during 1881-90. But in *Gorbals* the rate for 1898-1900 is still in excess of that for 1881-90, and only ·02 below that for 1891-7; while in *Port-Dundas* it has further increased by 2·16; in *Monteith Row* by ·53; in *Brownfield* by 1·73; in *Cowcaddens* by ·02; and all of them, save Monteith Row, appear in the list of six districts now showing the highest death-rates, which will subsequently be referred to.

In all the other districts the average rate for the last three years is lower than for each of the earlier periods.

The six sanitary districts presenting the highest death-rates in these consecutive periods are here shown:—

Death-rates per 1,000 Living.

	1881-90.	1891-97.	1898-1900.
14. Bridgegate and Wynds, ...	**39·54**	35·67	...
6. High Street and Closes, East, ...	**33·59**	31·20	30·43
16. Cowcaddens, ...	32·55	**32·77**	**32·79**
13. Brownfield, ...	30·37	**31·33**	**33·06**
3. High Street and Closes, West, ...	29·33	**29·97**	28·62
8. Barrowfield, ...	28·98	...	...
11. Calton, ...	...	29·64	...
2. Port-Dundas, ...	...	...	29·55
22. Gorbals, ...	...	...	28·89

Of the districts, in the first period, *Cowcaddens*[1] and *Brownfield*[2] alone show an increasing rate in the second and third, and these now have the highest rate of all the districts, while *Port-Dundas*[3] and *Gorbals*,[4] in the last period, have displaced Barrowfield and Calton.

In the following Table a comparison is established between the death-rate for three successive periods from certain causes of disease in these districts and the rate for the whole municipal area. It will be seen that the decline in the City death-rate from *All Causes* in the periods compared results from a decrease in the mortality of each of the classes of disease specified, save enteric fever and diarrhœa. These exceptions, together with the increased infantile death-rate, are among the most important factors by which the healthiness of a community can be estimated. In the four districts the rate for each of the specified causes has increased, with few exceptions.

---

[1] District 16, or "Cowcaddens," is an irregular area bounded by the Canal, Port-Dundas Road, Cowcaddens Street, Garscube Road, Woodside Road, Raglan Street, and Fleming Street. In 1900 it contained 3,680 houses, of which 1,905 were registered as "ticketed," and 21 as sub-let houses.

[2] District 13, or "Brownfield," is the smallest of all the districts, and is named after one of several hamlets which stood on the slopes of Cranstonhill. The boundaries are Brown Street and M'Alpine Street to the east and west, and Argyle Street and the Clyde north and south. In 1900 it contained 687 houses, of which 255 were registered as "ticketed," and 45 as sub-let houses.

[3] District 2, or "Port-Dundas," is bounded by the Canal on the north, and by Kyle Street, Dobbie's Loan, the Caledonian Station, and Port-Dundas Road. The Canal Basins occupy a considerable area in the north. In 1900 it contained 1,145 houses, of which 467 were registered as "ticketed" houses.

[4] District 22, or "Gorbals," is bounded by Nicholson Street, Warwick Street, Bedford Street, Greenside Street, Rutherglen Road, Rose Street, and the Clyde. In 1900 it contained 2,539 houses, of which 877 were registered as "ticketed," and 51 as sub-let houses.

TABLE IV.

DEATH-RATES PER MILLION FROM **all Causes,** AND FROM **certain Specified Causes,** IN THE **Four Districts showing an Increasing Death-rate** IN SEVERAL PERIODS.

District.	Estimated Population, 1900.	Persons per Room, 1891.	Period.	Birth-rate per Million.	Death-rate under 1 year per 1,000 born.	DEATH-RATE PER MILLION.							
						All Causes.	Principal Zymotic.	Enteric.	Diarrhœa.	Diphtheria.	Phthisis.	Respiratory Diseases.	Other Causes.
Port-Dundas, ...	5,380	2·544	1881-90	39,600	176	26,880	4,290	330	870	220	1,940	7,420	13,230
			1891-97	38,059	**183**	**27,386**	**4,820**	**407**	**939**	**438**	**2,723**	6,573	**13,270**
			1898-1900	38,164	**224**	**29,550**	4,288	199	**1,627**	**358**	**2,357**	**8,150**	**14,755**
Brownfield, ...	3,358	2·329	1881-90	37,100	199	30,370	4,290	210	990	180	**3,340**	8,120	14,620
			1891-97	40,644	183	**31,326**	**4,977**	**251**	**1,129**	**377**	2,259	8,030	**16,060**
			1898-1900	40,640	**207**	**33,070**	**5,303**	**882**	**1,174**	**393**	2,750	**8,934**	**16,083**
Cowcaddens, ...	16,925	2·563	1881-90	42,800	190	32,550	5,320	160	1,110	320	**3,350**	8,710	15,170
			1891-97	43,962	**215**	**32,773**	**5,492**	**295**	**1,447**	**330**	2,688	**8,912**	**15,681**
			1898-1900	43,736	**219**	**32,799**	5,033	**240**	**1,523**	320	2,357	**9,379**	**16,030**
Gorbals, ...	12,139	2·316	1881-90	36,800	173	28,260	4,430	**340**	960	**250**	2,830	8,570	12,430
			1891-97	38,794	**183**	**28,913**	**4,512**	291	**1,367**	194	2,734	**8,622**	**13,045**
			1898-1900	37,761	**209**	**28,899**	**4,768**	307	**1,923**	220	**2,874**	7,487	**13,770**
Glasgow, ...	755,730	{2·033[1] / 1·865[2]}	1881-90	36,560	147	**24,220**	**3,600**	230	709	**280**	**2,680**	**5,870**	**12,070**
			1891-97	33,808	146	21,906	3,337	199	785	264	2,087	5,154	11,328
			1898-1900	32,603	**154**	20,647	3,153	**253**	**977**	155	1,846	4,617	11,031

[1] Old Glasgow. [2] Greater Glasgow.

The following Table shows the *infantile mortality* and the mortality from *diarrhœal diseases* and *enteric fever* in relation to *nuisances registered* in each sanitary district of the City during 1900:—

TABLE V.

GLASGOW.—DEATHS UNDER 1 YEAR PER 1,000 BORN; DEATH-RATE PER MILLION FROM DIARRHŒAL DISEASES AND ENTERIC FEVER; AND NUISANCES REGISTERED PER 1,000 OF POPULATION IN EACH SANITARY DISTRICT IN 1900.

SANITARY DISTRICTS.	Deaths under 1 Year per 1,000 Born.	DEATH-RATE PER MILLION.		Nuisances Registered per 1,000 of Population.
		Diarrhœal Diseases.	Enteric Fever.	
Monteith Row, ...	158	...	...	69·3
St. Enoch Square, ...	154	...	862	165·5
Kelvinside, ...	112	...	136	20·0
Langside and Mount Florida, ...	86	65	65	25·4
Hillhead, ...	75	117	...	27·2
Pollokshields, E., and Strathbungo, ...	73	144	...	25·3
Crosshill, ...	106	247	...	26·9
Possilpark and Barnhill, ...	121	257	411	54·1
Kelvinhaugh and Sandyford, ...	110	355	...	69·5
St. Rollox, ...	143	370	247	55·0
Blythswood, ...	162	398	72	64·5
Exchange, ...	149	400	89	47·0
Govanhill, ...	120	421	84	34·5
Kingston, ...	166	500	275	75·0
Springburn and Rockvilla, ...	126	501	223	52·1
Pollokshields, W., and Bellahouston, ...	102	506	...	19·9
St. Andrew's Square, ...	156	524	262	77·0
Woodside, ...	139	551	368	52·2
Bellgrove and Dennistoun, ...	156	566	206	36·1
Maryhill, ...	131	686	149	42·4
Bridgegate and Wynds, ...	164	732	488	92·5
Port-Dundas, ...	208	744	372	77·1
Brownfield, ...	301	893	596	125·7
High Street and Closes, E., ...	215	940	376	68·4
Calton, ...	164	966	242	83·0
High Street and Closes, W., ...	182	996	498	43·2
Hutcheson Square, ...	146	1,072	130	71·0
Anderston, ...	176	1,119	180	100·0
Cowcaddens, ...	233	1,123	236	160·0
Gorbals, ...	181	1,153	494	170·8
Greenhead and London Road, ...	154	1,643	191	34·0
Laurieston, ...	206	1,666	...	154·3
Barrowfield, ...	186	1,736	222	58·0
CITY, ...	153	744	209	58·4

The districts are arranged in order of diarrhœal mortality from lowest to highest.

INFANTILE MORTALITY.

The number of infants dying under one year of age in 1899 was 3,686, and in 1900, 3,733, representing a mortality per 1,000 born of 152 and 153 respectively.

For several periods the rate has been as follows:—

Average of 5 years, 1886-90, = 143 per 1,000 births.
1891-95, = 146 „
1896, = 136
1897 = 160
1898, = 156 } Average = 151.
1899, = 152
1900, = 153

Compared with several large towns, the infantile mortality in the 10 years, 1890-99, and in 1900, has been as follows:—

	1890-99.	1900.
Glasgow, ...	**148**	**153**
Edinburgh,...	143	153
Aberdeen, ...	180	173
Dundee, ...	146	141
London, ...	160	160
Liverpool.	192	186
Manchester, ...	190	189
Birmingham, ...	186	199
Leeds.	178	183
Sheffield.	184	200

In all the English towns the infantile death-rate exceeds that of Glasgow in both periods, as does also that of Aberdeen.

The infantile mortality in each of the sanitary districts for several periods has been as follows:—

TABLE VI.

GLASGOW.—DEATHS UNDER 1 YEAR PER 1,000 BIRTHS IN EACH SANITARY DISTRICT.

SANITARY DISTRICTS.	Seven Years, 1891-7.	1898.	1899.	1900.	Average of 3 Years. 1898-1900.
28. Hillhead, ...	57	96	59	75	77
27. Pollokshields (W.) and Bellahouston,	66	108	35	102	82
26. Pollokshields (E.) and Strathbungo, ...	71	89	77	73	80
25. Langside and Mount Florida, ...	73	92	83	86	87
29. Kelvinside, ...	76	90	65	112	89
24. Crosshill, ...	80	86	90	106	94
17. Kelvinhaugh and Sandyford, ...	105	116	103	110	110
23. Govanhill, ...	111	143	124	120	129
30. Maryhill, ...	119	146	119	131	132
31. Possilpark and Barnhill, ...	125	127	132	121	127
15. Woodside, ...	125	138	143	139	140
— Blythswood, ...	136	144	118	162	141
— Springburn and Rockvilla, ...	137	155	141	126	141
5. Bellgrove and Dennistoun, ...	138	137	133	156	142
21. Hutcheson Square, ...	140	158	148	146	151
4. St. Rollox, ...	144	145	150	143	146
19. Kingston, ...	145	136	166	166	155
1. Exchange, ...	149	144	145	149	**146**
7. Greenhead and London Road, ...	150	151	152	154	152
8. Barrowfield, ...	166	188	165	186	180
18. Anderston, ...	166	200	198	176	191
20. Laurieston, ...	166	183	182	206	190
3. High Street and Closes, West, ...	168	158	192	182	177
9. Monteith Row, ...	173	190	188	158	179
10. St. Andrew's Square, ...	173	150	220	156	175
11. Calton, ...	178	190	176	164	**177**
2. Port-Dundas, ...	183	222	242	208	224
13. Brownfield, ...	183	148	172	301	207
22. Gorbals, ...	183	199	248	181	209
12. St. Enoch Square, ...	184	202	281	154	212
6. High Street and Closes, East, ...	193	188	190	215	198
16. Cowcaddens, ...	215	214	209	233	218
14. Bridgegate and Wynds, ...	232	227	124	164	**172**
CITY, ...	146	156	152	153	153

In comparing the infantile death-rate for the year 1898 with the average of the years 1891-7, I had occasion to point out that it was lower in nine districts only. When the average of the last three years is compared with that of the previous seven only three show a decrease, and in one of these, the Bridgegate and Wynds district, the rate is not comparable over any considerable period of years.

It is worthy of note that this increase in the infantile mortality is not confined to, or even proportionately greater in, the most densely populated and least sanitary districts of the City. There is sufficient evidence of the constancy of these factors in the death of one infant, during its first year of life, in every five born in the districts of Port-Dundas, Brownfield, Gorbals, and Cowcaddens, as compared with one in thirteen in Hillhead, Pollokshields, and Strathbungo districts, one in twelve in Pollokshields (W.) and Bellahouston, and one in eleven in Langside, Mount Florida, and Kelvinside. But the rate of increase has been greatest in the added districts of the north-west and south, varying from 13 per cent. in Pollokshields and Strathbungo to 17 per cent. in Kelvinside, 19 per cent. in Langside and Mount Florida, 24 per cent. in Pollokshields (W.) and Bellahouston, and 35 per cent. in Hillhead; while in Port-Dundas it has increased 22 per cent.; in Gorbals, 14 per cent.; in Brownfield, 13 per cent.; and in Cowcaddens by only 1·4 per cent. There is pathos in the relatively inelastic character of the infantile death-rate of the last-named districts, suggestive, as it is, of a constant strain on the vitality of its child life which is incapable almost of being intensified by conditions which prove fatal to those more happily circumstanced. And it is worthy of consideration whether the increasing tendency to have recourse to artificial feeding as a substitute for natural nursing can be dissociated from the increasing infantile death-rate of the suburban districts.

AGE AT WHICH DEATH OCCURS FROM SEVERAL CAUSES OF DISEASE.

The following Tables are of interest as showing the period of life at which certain diseases are attended with the greatest fatality, and will afford material from which in future fluctuations in the death-rate at age-periods may be followed, and a clearer view of the movements of disease obtained than is possible when the death-rate for all ages is dealt with.

Glasgow, 1898.—Deaths from Different Diseases at Several Age Periods.

Causes of Death.	All Ages.	Age Periods.				
		Under 1 Year.	1-5 Years.	5-20 Years.	20-60 Years.	60 Years and up.
Typhus Fever,	6	...	...	...	6	...
Enteric Fever,	228	...	11	78	134	5
Undefined Fever,	4	...	1	2	1	...
Scarlet Fever,	190	9	103	70	8	...
Measles,	539	122	381	32	4	...
Whooping-cough,	703	251	417	35	...	...
Croup,	52	25	28	...	...	...
Diphtheria,	113	21	73	18	1	...
Diarrhœa,	687	458	151	10	33	35
Consumption,	1,325	14	54	215	1,007	35
Acute Diseases of Lungs,	3,053	834	622	112	921	564
Nervous Diseases of Children,	917	464	453	...	...	...
Atrophy and Debility of Children,	735	634	101	...	...	...
Premature Birth,	438	438	...	...	...	...
Influenza,	104	6	6	7	41	44
Other Causes,	5,777	516	290	537	2,496	1,938
All Causes,	14,872	3,792	2,691	1,116	4,652	2,621
Percentage at different Ages,	1,000	255	181	75	313	176

TABLE VII.

Glasgow, 1899.—Deaths from Different Diseases at Several Age Periods.

DISEASES.	All Ages.	Under 1 Year.	1-5 Years.	5-15 Years.	15-20 Years.	20-25 Years.	25-60 Years.	60 Years and Over.
Smallpox, ...	...	...	...	...	...	...	...	...
Diphtheria and Membranous Croup,	109	20	69	16	1	1	2	...
Scarlet Fever, ...	205	10	119	54	7	5	10	...
Typhus, ...	4	...	...	...	...	...	4	...
Enteric Fever, ...	178	...	6	36	13	40	80	3
Undefined, ...	1	...	...	...	...	...	1	...
Measles, ...	544	122	393	24	...	...	5	...
Whooping-cough, ...	323	112	194	17	...	...	...	...
Diarrhœa, ...	932	594	189	26	2	3	63	55
Septic Diseases, ...	100	14	1	3	2	19	47	14
Phthisis, ...	1,383	20	40	79	119	160	912	53
Other Tubercular Diseases, ...	927	286	415	122	28	18	54	4
Cancer and Malignant Diseases, ...	529	...	3	2	5	1	311	207
Diseases of Nervous System, ...	1,293	252	129	66	22	17	367	440
Diseases of Circulatory System, ...	1,203	46	6	51	21	29	579	471
Croup, ...	63	17	30	8	1	1	5	1
Diseases of Respiratory System, ...	3,395	724	640	92	45	60	1,093	741
Violence, ...	436	28	50	43	10	22	210	73
Premature Birth, ...	468	468	...	...	...	...	...	...
Other Causes, ...	3,257	973	189	111	51	71	892	970
All Causes, ...	15,350	3,686	2,473	750	327	447	4,635	3,032
Percentage at different Ages,	1,000	240	161	49	21	29	302	198

TABLE VIIa.

Glasgow, 1900.—Deaths from Different Diseases at Several Age Periods.

DISEASES.	All Ages.	Under 1 Year.	1-5 Years.	5-15 Years.	15-20 Years.	20-25 Years.	25-60 Years.	60 Years and Over.
Smallpox,	41	4	4	3	1	1	28	...
Diphtheria and Membranous Croup,	125	14	90	19	...	1	1	...
Scarlet Fever,	210	12	135	52	3	3	5	...
Typhus Fever,	17	...	...	...	2	3	12	...
Enteric Fever,	158	1	3	27	20	32	71	4
Undefined Fever,	1	...	...	...	...	...	1	...
Anthrax,	1	...	...	...	...	1	...	...
Plague,	7	1	...	2	...	2	2	...
Measles,	461	101	330	26	2	1	1	...
Whooping-cough,	694	232	442	20	...	...	...	...
Diarrhœa,	562	333	96	25	2	5	49	52
Septic Diseases,	109	11	6	2	4	13	63	10
Phthisis,	1,418	17	53	100	129	209	870	40
Other Tubercular Diseases,	912	263	396	145	27	20	55	6
Cancer and Malignant Diseases,	502	2	4	1	3	6	308	178
Diseases of Nervous System,	1,292	231	137	79	19	18	396	412
Diseases of Circulatory System,	1,174	49	11	32	24	41	571	446
Croup,	75	26	34	7	...	...	4	4
Diseases of Respiratory System,	3,688	909	736	101	58	52	1,059	773
Influenza,	206	16	10	2	4	8	77	89
Violence,	461	31	49	43	23	18	218	79
Premature Birth,	461	461	...	...	...	...	...	...
Other Causes,	3,349	1,019	218	114	50	83	905	960
All Causes,	15,924	3,733	2,754	800	371	517	4,696	3,053
Percentage at different Ages,	1,000	234	173	50	23	33	295	192

CLASSIFICATION OF CAUSES OF DEATH.

In the Report for 1898 (Table V.) there is contained an analysis of the death-rate from several causes of disease in that year compared with the average rate for the years 1891-7. A re-classification of these causes was introduced to meet the requirements of the Local Government Board in 1899, and the following Table presents the corresponding analysis for the years 1899 and 1900:—

GLASGOW DEATH-RATES (MEDICAL OFFICER'S POPULATION AND CORRECTED DEATHS) PER 1,000 LIVING.

	1899.		1900.	
I. PRINCIPAL ZYMOTIC DISEASES, ...		3·072	...	3·013
Smallpox, ...	...	...	·054	...
Diphtheria, ...	·146	...	·165	...
Scarlet Fever, ...	·274	...	·278	...
Typhus Fever, ...	·005	...	·023	...
Enteric and Doubtful Fevers,	·240	...	·221	...
Measles, ...	·728	...	·610	...
Whooping-cough, ...	·432	...	·918	...
Diarrhœa, ...	1·247	...	·744	...
II. SEPTIC DISEASES, ...	...	·134	...	·144
III. TUBERCULAR DISEASES—				
Phthisis, ...	1·851	3·092	1·876	3·083
Not Phthisis, ...	1·241		1·207	
IV. CANCER (Malignant Disease), ...	...	·708	...	·664
V. DISEASES OF NERVOUS SYSTEM, ...	...	1·730	...	1·710
VI. ,, CIRCULATORY SYSTEM,	...	1·610	...	1·553
VII. ,, RESPIRATORY ,,	...	4·628	...	4·979
VIII. OTHER CAUSES, ...	...	5·569	...	5·925
City, ...	...	20·543	...	21·071
Birth-rates, ...	...	32·542	...	32·236
Deaths under 1 year per 1,000 born,	...	152	...	153

The increase or decrease in each of the above classes is stated in the following Table as a + or − quantity:—

Plus (+) and Minus (−) variations in rates for 1900 as compared with 1899:—

	+	−	+	−
I. PRINCIPAL ZYMOTICS, ...	...	...	...	59
Smallpox, ...	54	...	...	...
Diphtheria, ...	19	...	...	...
Scarlet Fever, ...	4	...	...	...
Typhus Fever, ...	18	...	...	...
Enteric Fever and Undefined,[1] ...	...	19	...	...
Measles, ...	...	118	...	...
Whooping-cough, ...	486	...	...	...
Diarrhœa, ...	...	503	...	...
II. SEPTIC DISEASES, ...	...	...	16	...
III. TUBERCULAR DISEASES, ...	...	...	...	9
Phthisis, ...	25	...	...	...
Not Phthisis, ...	...	34	...	...
IV. CANCER (Malignant Disease), ...	...	...	...	44
V. DISEASES OF NERVOUS SYSTEM, ...	...	...	...	20
VI. ,, CIRCULATORY SYSTEM, ...	...	...	...	57
VII. ,, RESPIRATORY ,, ...	...	...	351	...
VIII. OTHER CAUSES, ...	...	...	356	...
			717	189
Plus difference =			528	

[1] This includes a death-rate of ·010 per 1,000, or 10 per million, from plague, and of ·001, or 1 per million, from anthrax.

By this method of stating the rate we are able to ascertain in detail the fluctuations in the several causes which contributed to the increase of 528 deaths *per million* living in 1900 compared with 1899. From several causes—viz., principal zymotics, tubercular diseases, malignant diseases, and diseases of the nervous and circulatory system—a total of 189 lives per million were gained, while from septic diseases, diseases of respiration, and other causes not classified, 717 lives per million were lost during 1900 in excess of 1899.

The gain in the principal zymotics was equal to 59 per million; in tubercular diseases, 9; in malignant diseases, 44; in diseases of the nervous system, 20; in diseases of the circulatory system, 57. But the Table also shows that the decrease in the rate for the principal zymotic diseases was confined to enteric fever, diarrhœa, and measles, while smallpox, diphtheria, scarlet fever, typhus fever, and whooping-cough each had a higher rate, and that the lower rate from tubercular diseases resulted from a decrease in the forms not phthisis.

Tables III. and IV. of the Appendix contain the deaths and death-rates from each of these several causes of disease in the various sanitary districts.

INFECTIOUS DISEASES.

17,833 cases of infectious disease were registered by the department during 1899, and 16,684 during 1900, representing a case-rate of 23·9 and 22·1 respectively per 1,000 of the estimated population living in each year. The number of each of the diseases which form this class, their distribution in the several sanitary districts, and the number of each removed to hospital, are stated in Tables V. and V*a*., and their monthly distribution in Tables VI. and VI*a*. in the Appendix.

PRINCIPAL ZYMOTIC DISEASES.

The number of deaths from the principal zymotic diseases, viz., smallpox, measles, scarlet fever, diphtheria, typhus, enteric, and undefined fever (including 7 from plague and 1 from anthrax in 1900), whooping-cough, and diarrhœa during 1899 was 2,296, and during 1900 was 2,277, giving an annual death-rate of 3·071 and 3·013 respectively per 1,000 living.

The corresponding rates for the last three years and for two preceding periods are:—

1881-90, = 3·600 per 1,000 living.
1891-97, = 3·337 „
1898, = 3·376 „
1899, = 3·071 „ } Average annual rate, = 3·153.
1900, = 3·013 „

In the following Table the corresponding rates for several towns are given, the Registrar-General's deaths and populations being taken:—

TABLE VIII.

PRINCIPAL ZYMOTIC DISEASES.[1]

	Death-rate per 100,000.			
	1888-97.	1898.	1899.	1900.
Glasgow,	**323**	**304**	**273**	**284**
Edinburgh,	217	189	204	144
Dundee,	227	270	218	162
Aberdeen,	202	183	234	189
Liverpool,	347	322	377	318
Manchester,	340	311	392	305
Birmingham,	282	278	296	272
Leeds,	263	312	279	292
Sheffield,	316	382	439	433
London,	272	278	248	222

In 1899 the rate in Glasgow was exceeded in all the English towns named, save London, while London and Birmingham had lower rates in 1900.

In the several sanitary districts of the City these rates, for several periods, are shown in the following Table, which also contains the number of deaths from each occurring in the several districts during 1899-1900:—

[1] The figures for the Scotch towns are from the Registrar-General's Annual Reports; those for the English towns from the Registrar-General's Annual Summaries.

TABLE IX.

GLASGOW.—PRINCIPAL ZYMOTIC DISEASES.—DEATHS IN 1899-1900, AND DEATH-RATES PER MILLION FOR SEVERAL PERIODS.

DISTRICTS.	DEATHS.		DEATH-RATES PER MILLION.				
	1899.	1900.	1899.	1900.	1881-90.	1891-7.	1898-1900.
— Blythswood, ...	35	**54**	1,245	1,953	1,860	1,826	1,582
1. Exchange, ...	43	**51**	1,924	2,268	2,710	2,454	2,213
2. Port-Dundas, ...	18	**30**	3,251	5,577	4,290	**4,820**	4,288
3. High Street and Closes, W., ...	31	41	3,137	4,084	3,040	**3,489**	3,262
4. St. Rollox, ...	89	39	5,463	2,405	3,600	3,404	**3,569**
5. Bellgrove and Dennistoun, ...	241	229	3,194	2,946	3,580	3,409	3,185
6. High Street and Closes, E., ...	20	19	3,720	3,572	4,010	4,009	3,839
7. Greenhead and London Road, ...	263	280	4,247	4,466	4,070	**4,359**	4,319
8. Barrowfield, ...	117	134	4,399	4,951	4,480	**4,952**	4,813
9. Monteith Row, ...	16	8	3,947	2,024	2,470	**2,873**	2,534
10. St. Andrew's Square, ...	11	9	2,897	2,359	3,290	**3,674**	2,699
11. Calton, ...	103	74	4,908	3,575	4,390	**4,914**	4,131
12. St. Enoch Square, ...	7	4	2,356	1,724	2,750	**3,501**	2,069
13. Brownfield, ...	8	21	2,321	6,254	4,290	**4,977**	**5,303**
14. Bridgegate and Wynds, ...	10	17	2,202	4,148	4,490	4,348	3,275
15. Woodside, ...	177	200	2,519	2,828	3,130	2,627	**2,701**
16. Cowcaddens, ...	66	88	4,006	5,199	5,320	**5,492**	5,033
17. Kelvinhaugh and Sandyford, ...	45	42	1,423	1,354	2,090	1,922	1,634
18. Anderston, ...	123	120	4,376	4,330	4,350	**4,380**	**4,660**
19. Kingston, ...	100	149	2,498	3,723	2,920	**3,015**	2,962
20. Laurieston, ...	36	48	4,157	5,713	4,460	**4,687**	**5,238**
21. Hutcheson Square, ...	264	255	3,843	3,694	4,030	3,904	3,889
22. Gorbals, ...	66	41	5,360	3,377	4,430	**4,512**	**4,768**
— Springburn and Rockvilla, ...	127	78	3,648	2,172	3,620	**3,718**	3,258
23. Govanhill, ...	48	45	2,144	1,894		2,171	**2,683**
24. Crosshill, ...	14	11	1,860	1,358		1,110	**1,516**
25. Langside and Mount Florida, ...	8	10	556	647		1,017	801
26. Pollokshields, E., and Strathbungo,	13	5	953	360		900	732
27. Pollokshields, W., and Bellahouston,	7	4	1,213	675		978	**1,104**
28. Hillhead, ...	3	7	348	819		671	544
29. Kelvinside, ...	4	3	608	408		730	500
30. Maryhill, ...	77	77	2,373	2,297		2,838	2,471
31. Possilpark, ...	44	44	2,363	2,261		3,449	2,504
— Institutions and Harbour, ...	62	40	...	...	...	...	...
CITY, ...	2,296	2,277	3,071	3,013	3,600	3,337	3,153

Annexed to City in November, 1891.

It is of importance to note, with regard to the progressive decline in the mortality from the principal zymotic diseases over the whole City in the several periods compared that the movement is not maintained uniformly in the several districts.

In the period 1891-7 the average death-rate from this class of diseases exceeded that of 1881-90 in sixteen districts, and in four of these, Brownfield, Anderston, Laurieston, and Gorbals, the average rate for 1898-1900 was still higher; while in St. Rollox and Woodside districts of the old City, and in Govanhill, Crosshill, Pollokshields (W.), and Possilpark districts of the extended City, the rate for 1898-1900 exceeded that of 1891-7.

Variations in the zymotic rate are, however, dominated to so large an extent by the presence or absence of measles and whooping-cough (depending for their prevalence on the accumulation of young children at susceptible ages, rather than on local insanitary conditions), and by the prevalence of diarrhœa, which is so largely infantile—that a comparison of the district variation will be best considered under each of the several diseases forming this class.

SMALLPOX.

During 1899 one case of smallpox occurred in Glasgow, and the history, as related in the fortnightly report at the time of its occurrence, is as follows:—

> "On 5th June there was admitted to hospital, suffering from smallpox, a patient from the Northern district of the City, who had arrived in Glasgow on 23rd May from India, coming overland from Marseilles, at which port he arrived on 20th ultimo. His sickness began on June 1st, which would coincide with exposure to infection about the time of his arrival at Marseilles. There was no recognised case of smallpox among the passengers or crew of the steamer in which he came from India."

The early recognition of the disease in this patient, and the absence of secondary cases, is in striking contrast with the introduction of the disease in April, 1900, in the person of a seaman who developed the disease in confluent form, and had no medical attendance until towards the end of the second week of his attack. Meanwhile, the nature of the disease being unsuspected, he was confined to bed in a one-apartment house in Calton district, with one, and sometimes two lodgers, and several visitors, who spent much of their time drinking, when money could be had, either by work, or by pledging whatever valuables they possessed and on which advances could be obtained.

Dating from this till the end of the year 1900, 397 cases of the disease were registered, of which 394 were treated in hospital, and 41 deaths occurred, representing a case-rate of ·53 per 1,000 living, and a death-rate of ·054, but as the whole outbreak will form the subject of a special report, it will be unnecessary here to consider the extension of the disease from this centre.

The mortality from smallpox for several periods in Glasgow and other towns in England and Scotland is shown in the following Table:—

SMALLPOX.[1]

	Death-rate per 100,000.			
	1888-97.	1898.	1899.	1900.
Glasgow, ...	1·3	...	...	6
Edinburgh, ...	2·7	...	...	...
Dundee, ...	0·5	...	...	...
Aberdeen, ...	0·3	...	...	...
Liverpool, ...	1	...	...	3
Manchester, ...	2	...	...	...
Birmingham, ...	5	...	...	...
Leeds, ...	1	...	...	...
Sheffield, ...	14	...	60	...
London.	1	...	...	...

The distribution of the deaths occurring from the disease in the several sanitary districts in 1900, and the district death-rates for several periods, are as follows:—

[1] Registrar-General's figures.

TABLE X.

GLASGOW.—SMALLPOX.—DEATHS AND DEATH-RATES PER MILLION FOR THE YEARS 1899 AND 1900; ALSO DEATH-RATES PER MILLION FOR 1881-90, 1891-97, AND FOR 1898.

SANITARY DISTRICTS.	DEATHS.[1]	DEATH-RATES PER MILLION.[2]		
	1900.	1900.	1881-90.	1891-97.
— Blythswood,	1	36	...	5
1. Exchange,	2	89	...	...
2. Port-Dundas,	...	...	...	31
3. High Street and Closes, West,	...	...	...	30
4. St. Rollox,	1	62	...	9
5. Bellgrove and Dennistoun,	4	52	10	13
6. High Street and Closes, East,	1	188	...	...
7. Greenhead and London Road,	12	191	10	32
8. Barrowfield,	2	74	...	26
9. Monteith Row,	1	253	...	33
10. St. Andrew's Square,	...	...	...	...
11. Calton,	3	145	...	13
12. St. Enoch Square,	1	431	30	45
13. Brownfield,	...	...	...	...
14. Bridgegate and Wynds,	...	...	30	27
15. Woodside,	1	14	...	5
16. Cowcaddens,	...	...	20	...
17. Kelvinhaugh and Sandyford,	...	...	...	19
18. Anderston,	3	108	10	30
19. Kingston,	4	100	...	7
20. Laurieston,	...	...	...	...
21. Hutcheson Square,	2	29	...	9
22. Gorbals,	...	...	...	11
— Springburn and Rockvilla,	...	...	...	10
23. Govanhill,	1	42	Annexed to City in November, 1891.	...
24. Crosshill,	...	...		...
25. Langside and Mount Florida,	...	..		15
26. Pollokshields, E., and Strathbungo,	...	...		...
27. Pollokshields, W., and Bellahouston,	...	...		...
28. Hillhead,	...	...		...
29. Kelvinside,	...	...		...
30. Maryhill,	1	30		...
31. Possilpark and Barnhill,	...	...		10
— Institutions and Harbour,	1	...	...	...
CITY,	41	54	10	13

[1] No deaths in 1899.

[2] No deaths in 1898 and 1899.

VACCINATION.

The following statement shows the number of primary vaccinations and of revaccinations performed by the officers of the department during the years 1899-1900:—

	Primary.	Revaccinations.
At Office and Hospitals, ...	986	889
At Home in Infected Tenements, ...	5	6,372
In Prisons, ...	...	196
By Practitioners, ...	8	964
	999	8,421

Primary Vaccination.

The following Table is taken from the supplement to the Registrar-General's Monthly and Quarterly Returns for 1900, and gives particulars as to the vaccination of children born in Glasgow, 1899:—

		Percentage.
Successfully vaccinated, ...	20,191	83·3
Vaccination postponed, ...	215	0·9
Insusceptible of vaccination, ...	201	0·8
Died before vaccination, ...	2,865	11·8
Removed from the district or otherwise unaccounted for, ...	775	3·2
Total births during year, ...	24,247	100·0

This proportion of defaulters exceeds by ·5 per cent. the average of the three years 1896-98.

MEASLES.

8,964 cases were registered in 1899, and 544 deaths occurred; and 6,606 cases were registered in 1900, and 461 deaths occurred; representing a death-rate of ·728 in 1899, and ·610 in 1900 per 1,000 of the estimated population living.

For several periods the death-rate has been as follows:—

1881-90, ... = ·680 per 1,000 living.
1891-97, ... = ·824 „
1898-1900, ... = ·692 „

The following Table shows the death-rate per 100,000 for several large towns for the 10 years 1890-99 and for 1900:—

	1890-99.	1900.
Glasgow, ...	**87**	**63**
Edinburgh, ...	64	43
Dundee, ...	51	40
Aberdeen, ...	52	39
Paisley, ...	67	70
Greenock, ...	75	15
Liverpool.	63	23
Manchester, ...	81	47
Birmingham, ...	49	25
Leeds, ...	49	58
Sheffield, ...	58	55
London, ...	62	42

The total deaths, the number occurring in hospital, and their proportion to the total deaths, for several years, are as follows:—

Table XI.—Measles.

Year.	Deaths. Total Number.	Deaths. Number occurring in Hospital.	Death-rate per Million.	Percentage of Total Deaths occurring in Hospital.
1895	329	46	475	14·0
1896	819	126	1,164	15·4
1897	586	73	819	12·5
1898	539	89	737	16·5
1899	544	95	828	17·5
1900	461	81	610	17·6

In the several sanitary districts the death-rate for several periods is compared, and the deaths occurring in each for 1899-1900 is stated:—

TABLE XII.

GLASGOW.—MEASLES.—DEATHS AND DEATH-RATES PER MILLION FOR THE YEARS 1899 AND 1900; ALSO DEATH-RATES PER MILLION FOR 1881-90, 1891-97, AND FOR 1898.

SANITARY DISTRICTS.	DEATHS.		DEATH-RATES PER MILLION.				
	1899.	1900.	1899.	1900.	1881-90.	1891-97.	1898.
— Blythswood, ...	6	12	213	434	300	302	317
1. Exchange, ...	15	5	671	222	530	573	739
2. Port-Dundas, ...	3	13	242	2,416	820	1,471	449
3. High Street and Closes, W., ...	16	3	1,619	299	600	744	296
4. St. Rollox, ...	34	3	2,087	185	610	1,024	604
5. Bellgrove and Dennistoun, ...	53	51	702	656	710	845	675
6. High Street and Closes, E., ...	5	...	930	...	610	933	919
7. Greenhead and London Road, ...	64	43	1,033	686	760	1,033	690
8. Barrowfield, ...	40	23	1,504	850	840	1,287	732
9. Monteith Row, ...	2	2	493	506	290	555	699
10. St. Andrew's Square, ...	...	1	...	262	650	749	775
11. Calton, ...	36	9	1,715	435	800	1,217	954
12. St. Enoch Square, ...	1	...	337	...	520	269	709
13. Brownfield, ...	2	6	581	1,787	1,200	1,506	1,174
14. Bridgegate and Wynds, ...	3	4	661	976	740	1,100	818
15. Woodside, ...	34	36	484	509	560	565	525
16. Cowcaddens, ...	10	24	607	1,418	990	1,482	1,864
17. Kelvinhaugh and Sandyford, ...	8	6	253	193	320	298	257
18. Anderston, ...	35	36	1,245	1,299	890	1,400	457
19. Kingston, ...	23	40	574	999	570	794	553
20. Laurieston, ...	9	19	1,039	2,262	990	1,400	1,719
21. Hutcheson Square, ...	49	51	713	739	760	1,024	1,083
22. Gorbals, ...	13	2	1,056	165	920	980	2,209
— Springburn and Rockvilla, ...	21	19	603	529	780	1,041	1,034
23. Govanhill, ...	7	8	313	337	...	357	955
24. Crosshill, ...	1	2	133	247	...	150	...
25. Langside and Mount Florida, ...	1	3	69	194	...	105	75
26. Pollokshields, E., and Strathbungo, ...	2	...	147	...	...	29	74
27. Pollokshields, W., and Bellahouston,	1	...	173	...	...	39	534
28. Hillhead, ...	...	...	...	...	...	99	...
29. Kelvinside, ...	1	1	152	136	...	225	...
30. Maryhill, ...	6	20	185	597	...	587	893
31. Possilpark and Barnhill, ...	7	8	376	411	...	847	611
— Institutions, ...	36	11	...	...	...	...	...
CITY, ...	544	461	728	610	680	824	737

The number of deaths occurring at several age-periods will be found on pages 22-24.

Measles in Schools.

In view of the increasing prevalence of measles towards the close of 1899, I addressed the following circular letter to the Clerks of the various School Boards within the municipal area, and obtained the active co-operation of the education authorities on the lines indicated therein:—

"Circular Letter to School Boards.

"Sanitary Chambers,

"21st November, 1899.

"Dear Sir,

"MEASLES.

"During the past week or two there have been indications that measles threatens a somewhat increasing prevalence in Glasgow, and that as it proceeds the schools will be in succession invaded. My object in now writing you is to suggest that the attention of teachers, especially those of the infant departments, be drawn to the hints for the prevention of measles contained in the pamphlet issued under the instructions of the Health Committee, with the view of putting into operation the preventive suggestions contained chiefly on page 3, paragraph 2.

"Were children in the condition described in paragraph 2 prevented from going to school, or promptly dismissed directly they are discovered (and for this purpose discovery should not be accidental, but the outcome of an intelligently directed search for symptoms), we might hope that the result would be a lessening of the proportion of scholars attacked by the disease.

"I enclose a number of copies of the pamphlet that you may be able to peruse the paragraphs referred to, and will be glad to hear from you whether I should distribute copies thereof to the various head teachers from here, or whether you would prefer to distribute them through your attendance officers.

* * * * * * * * *

"Yours truly,

(Signed) "A. K. CHALMERS."

School Closure.

If parents refrained from sending to school children in whom the early symptoms are becoming apparent, the interruption to education and cost of life which so frequently results from measles might be to a larger extent minimised.

There is no other disease which so disturbs the machinery of primary education, and the proposal to meet an advancing tide of measles prevalence by school closure requires some consideration. The difficulty is largely increased by the proposal being deferred until it is too late to arrest the disease. If action is taken early, sectional closing only is necessary, because measles is primarily a disease of the infant department, and senior classes only become involved later on. But it is primarily this limitation of closing to a section which creates the difficulty. Article 30 of the Scotch Education Code, 1901, taken in conjuction with 19 F., appears to contemplate the payment of grant for children so excluded; but with the smaller Boards difficulty regarding grants usually arises when partial closing is proposed, and the occasion must be quite exceptional when one would be warranted in certifying that because measles is prevalent among the infants, a school of, say, 800 or 1,000 children requires total closure.

The custom of the Glasgow School Board, by which the average attendance is calculated on the reduced number of days on which the infant department is opened, in these circumstances seems worthy of imitation. Mr. Alexander, Clerk to the Board, has been good enough to favour me with a description of their procedure, of which the following is a summary:—

"The Scotch Education Department have permitted the School Board of Glasgow, *in cases where part of a school was closed for a time* by order of the Medical Officer of Health, to make up the average attendance for the part closed *by itself*, and add it to the average attendance for the rest of the school, instead of reckoning the whole school as open for all the time."

SCARLET FEVER.

The number of cases of scarlet fever notified during 1899 was 4,728, of which 3,694, or 84 per cent., were treated in hospital; and during 1900, 4,162, of which 3,568, or 86 per cent., were treated in hospital. The deaths in 1899 numbered 205, and in 1900, 210, representing a death-rate respectively of 274 and 278 per million living.

For several periods the rate has been as follows:—

Average of 10 years,		1881-90,	... ...	·490	per 1,000 living.
„	7	„	1891-97, ...	·305	„
„	3	„	1898-1900, ...	·271	„

The death-rate from the disease in several large towns for several periods is as follows:—

	Death-rate per 100,000. 1890-99.	1900.
Glasgow, ...	**29**	**29**
Edinburgh, ...	24	11
Dundee, ...	10	2
Aberdeen, ...	23	6
Paisley, ...	21	44
Greenock, ...	21	20
Liverpool, ...	40	17
Manchester, ...	28	19
Birmingham, ...	20	19
Leeds, ...	18	12
Sheffield, ...	28	17
London, ...	20	8

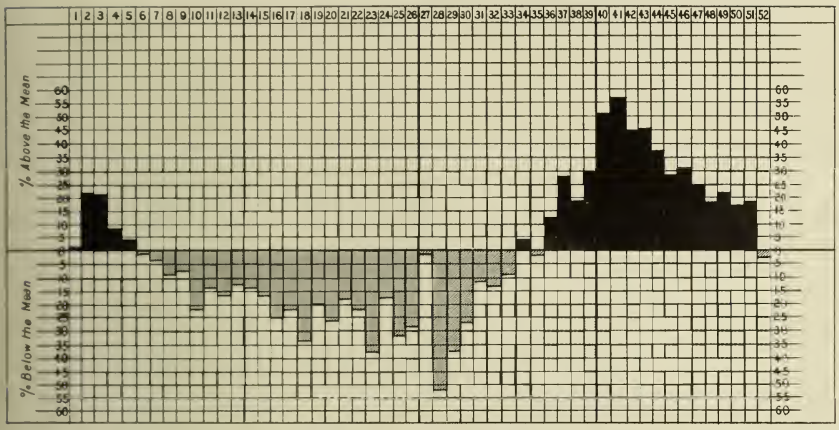
The number of cases registered, with the proportion treated in hospital, the proportion of deaths occurring there, and the case-mortality for ten years of the Infectious Diseases (Notification) Act, are stated in the following Table:—

TABLE XIII.—Scarlet Fever.

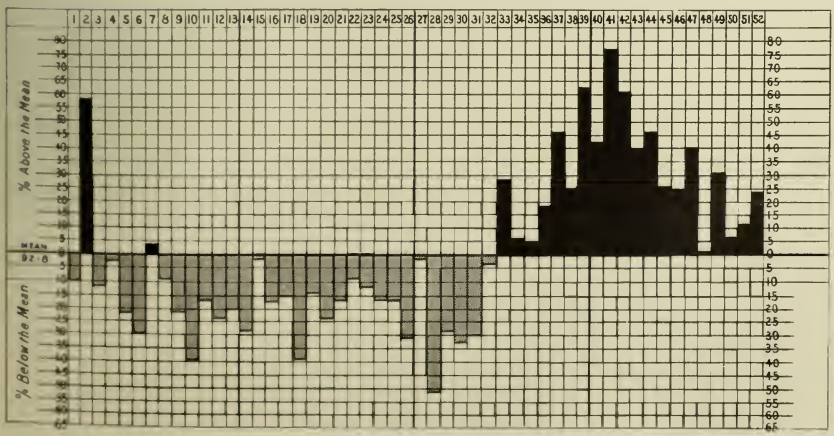
Year.	Cases.			Deaths.			Case-mortality. Per Cent.
	Number.	Rate per Million.	Per Cent. Treated in Hospital.	Number.	Rate per Million.	Per Cent. Occurring in Hospital.	
1891	3,045	5,383	62·8	201	355	69·2	6·6
1892	4,844	7,257	62·7	301	451	63·5	6·2
1893	4,027	5,973	70·9	267	396	68·9	6·6
1894	3,930	5,701	73·7	210	307	70·0	5·3
1895	3,502	5,051	75·5	184	265	76·6	5·3
1896	2,728	3,879	78·9	143	203	82·5	5·2
1897	2,955	4,130	75·5	130	182	77·7	4·4
1898	3,620	4,947	82·3	190	260	76·3	5·2
1899	4,728	6,327	83·8	205	274	71·7	4·3
1900	4,162	5,508	85·7	210	278	77·6	5·0

Scarlet Fever Notifications 1899.

Shewing Weekly Number in Relation to Weekly Mean of Years 1893-99.



Scarlet Fever Notifications 1899.



Quite recently attention has been directed to the value of hospital isolation as influencing the prevalence of scarlet fever. No question exists as to the diminished fatality of the disease, but, rather, whether this results from the operation of secular causes operating over wide areas. The death-rate we have seen falling from ·490 in the decade 1881-90 to ·385 in the first 7 years of the present decade, while the average of the past 3 years is ·271. The case-mortality also, which in 1891-7 was 5·8 per cent., has in the last 3 years averaged only 4·8 per cent.; but the relative prevalence of the disease during notification years has risen from 526 per 100,000 living during 1891-7 to 560 in 1898-1900. It would appear that necessary factors in the argument involve a comparison of the relative mortality of cases treated at hospital and at home, of secondary cases resulting from home treatment, and of the death-rates from the disease where hospital isolation is the exception.

Seasonal Prevalence.

In the Report for 1898 I introduced a diagram showing the weekly variations in the prevalence of the disease in relation to the mean weekly prevalence during the six years 1893-8, and in that now shown the curve has been constructed on similar data as for 1893-8. The main features of the present curve are the same; and the period of minimum and maximum prevalence arrests attention. The minimum occurs in the second week of July, and there is an abrupt descent in the last week of the year, which is recovered from in the second week of January. Both periods coincide with school holidays, but whether the association is more than accidental could only be shown by arranging the notifications according to age, entailing a demand on time which we have not been able to devote to the purpose. The constant return to mean prevalence in the 27th week of the year would seem to suggest that the seasonal influences favourable to the prevalence of scarlet fever begin early in June, but that the conditions on which they operate are altered by the occurrence of the holiday season, which for schools begins at the end of this month. The rapid diminution in the notifications, which is not only constant, but most marked, in the second week of July, is thus most likely quite accidental to the natural movement of the disease, and it is a fair surmise that, if the holiday season did not then intervene, the ascent which begins in June would be continuous. In London, where the school holidays do not begin till the end of July, this interruption to the ascent is postponed till August.

The second curve on the diagram shows the weekly fluctuations for 1899 in relation to the mean of the year, and, by comparison with that for the eight years, serves to throw into prominence the effect of a localised outbreak resulting from the presence of unrecognised scarlet fever in the family of a milk carrier early in the year.

District Deaths and Death-rates.

In the following Table the number of cases and the case-rates for 1899-1900, with the deaths and death-rates for these and several other periods, are stated for each of the sanitary districts:—

TABLE XIV.

Glasgow.—Scarlet Fever.

Sanitary Districts.	Cases.				Deaths.						
	Number.		Rate per 100,000.		Number.		Rate per Million.				
	1899.	1900.	1899.	1900.	1899.	1900.	1899.	1900.	1881 90.	1891-97.	1898.
— Blythswood, ...	163	98	578	354	6	2	213	72	350	218	246
1. Exchange, ...	87	131	358	536	1	4	45	178	360	252	92
2. Port-Dundas, ...	10	15	213	278	...	2	...	372	360	282	224
3. High Street and Closes, W., ...	36	61	363	603	1	5	101	498	310	394	99
4. St. Rollox, ...	103	131	632	808	7	7	430	431	560	392	60
5. Bellgrove and Dennistoun, ...	507	512	662	650	22	28	292	360	560	393	358
6. High Street and Closes, E., ...	37	35	520	511	3	3	558	564	560	420	367
7. Greenhead and London Road, ...	337	281	533	439	19	16	307	255	590	295	253
8. Barrowfield, ...	151	108	568	399	4	10	150	369	560	332	219
9. Monteith Row, ...	24	11	592	278	4	...	987	...	410	229	233
10. St. Andrew's Square, ...	26	7	592	158	...	...	...	...	570	357	258
11. Calton, ...	78	65	353	297	4	2	191	97	540	294	95
12. St. Enoch Square, ...	7	13	206	484	...	...	...	...	580	269	354
13. Brownfield, ...	8	10	214	274	...	3	...	893	360	418	...
14. Bridgegate and Wynds, ...	13	19	286	464	...	4	...	976	530	188	...
15. Woodside, ...	615	375	871	528	27	16	384	226	450	329	350
16. Cowcaddens, ...	73	45	431	258	9	1	546	59	700	339	120
17. Kelvinhaugh and Sandyford, ...	148	136	453	424	5	8	158	258	220	250	290
18. Anderston, ...	117	133	411	474	...	6	...	217	410	348	422
19. Kingston, ...	181	165	450	410	8	6	200	150	400	318	352
20. Laurieston, ...	40	31	444	355	3	5	346	595	560	374	115
21. Hutcheson Square, ...	442	573	644	830	19	35	277	507	640	345	231
22. Gorbals, ...	57	56	434	433	4	2	325	165	700	323	177
— Springburn and Rockvilla, ...	341	264	980	735	20	10	575	278	380	353	213
23. Govanhill, ...	144	178	643	749	9	10	402	421	...	229	908
24 Crosshill, ...	62	73	824	901	5	5	664	617	...	330	295
25. Langside and Mount Florida, ...	99	84	671	529	...	2	..	129	...	135	75
26. Pollokshields, E., and Strathbungo,	65	70	477	502	4	2	293	144	...	203	...
27. Pollokshields, W., and Bellahouston,	44	19	764	321	2	1	347	169	...	157	356
28. Hillhead, ...	67	34	777	398	2	...	232	...	...	59	..
29. Kelvinside, ...	55	33	768	417	1	...	152	...	...	197	162
30. Maryhill, ...	387	234	1,149	681	11	4	339	119	...	196	165
31. Possilpark and Barnhill, ...	204	162	1,032	786	4	7	215	360	...	292	167
— Institutions and Harbour, ...	...	...	...	...	1	4	...	...	...	...	...
CITY, ...	4,728	4,162	632	551	205	210	274	278	490	305	260

MILK INFECTION.

Illustration is afforded by the two following examples of milk infection, obtained in one case through apparently simple throats occurring in persons associated with scarlet fever, while in the other the source could not be discovered.

During August, 1899, an outbreak of scarlet fever, associated with a milk supply, occurred in the Northern District of the City, under the following circumstances:—

On the afternoon of Monday, 14th, we became aware that of 20 cases of scarlet fever notified as occurring in the Northern District of the City, 14 obtained their milk from one dairy in Springburn. This led to an immediate request being sent to the manager of the dairy in question to forward particulars of the sources of his milk supply, and, pending further inquiry, to submit all the milk distributed therefrom to a temperature of 175° F. for twenty minutes, or of 180° F. for a quarter of an hour. This latter request was at once given effect to, so that no milk not so treated was issued after the Monday evening's distribution until circumstances warranted this precaution being abandoned. On the following day (15th August), the cases notified in the Northern District numbered 27, and 24 of these again were customers of this dairy. As soon as it was possible to arrange it, a medical inspection of all the dairy employees was instituted, but this did not disclose any probable source of infection, nor, indeed, was any found which was at all likely to affect the milk after its delivery to the dairy. Attention was next directed to the sources of the milk supply, with a note of which we had been furnished. These were four in number (two of the farms, however, being in one occupancy), and the milk thus obtained was distributed among the several dairies of the Company in question in a manner which may thus be summarised:—From each of the four farms milk was supplied to the implicated dairy, but three of them also supplied other dairies of the Company. It so happened that the milk which went exclusively to the dairy which was under suspicion was from one of the two farms which, as already stated, were in one occupancy, but the output of those farms could be further distinguished. Thus, if we call the farms A and B, the twenty-four hours' yield of A went exclusively to the dairy in question, and was delivered there every morning, as was also the morning milk of B, but B's evening milk went partly to this dairy and partly to three others. In no other of the Company's dairies did any case of scarlet fever occur, so that we were led to infer that, if any explanation of the source of infection was to be discovered, it would be in the direction of farm A.

Accordingly, in co-operation with the authority of the district in which this farm is situated, a visit was made to it, and the following narrative records the events which then came to our knowledge:—In July the ploughman on this farm (whose house is some little distance from the farm-steading) was visited by the children of a relative residing at some distance. This visit lasted from the 15th or 17th till 22nd July, and on one of those days the children of another relative, also residing at some distance, visited them. One of these latter was, at the time, several weeks recovered from scarlet fever, and three days after they returned home, another of them sickened of the disease, and was removed to hospital in the district in which she resided. Further, a child of the ploughman sickened on the day this last family left (22nd July), and on 2nd August died of the disease at his own home. His mother (the ploughman's wife) was one of the milkers at farm A, but stopped this work after the evening milking of 24th July, when the nature of her boy's illness was declared. The ploughman himself began to suffer from sore throat on 29th July and was confined to the house for a day or two in the week in which his boy died, not returning to work till 7th August. The child of a neighbouring family, obtaining their milk at the farm, was ill of scarlet fever at the time of our visit and a relative of the farmer, living at the farm, and occasionally superintending the dairy operations, was confined to bed with sore throat, feverishness, and malaise, but no apparent rash—the onset of symptoms occurring on the 13th instant.

There were thus in this isolated locality three unmistakable cases of scarlet fever (including the child who sickened after her return home), and one death, and two illnesses, both accompanied by sore throat, and one by rise of temperature. Moreover, on our first visit to the farm, a domestic washing, consisting of about a fortnight's collection, was discovered in the milk scullery, which was connected by a lobby with the farm kitchen, and in which a boiler, specially provided for the purpose, was situated beside that used for scalding the milk vessels.

The farmer proved to be scrupulously anxious to assist us by giving effect to any suggestions made with the view of absolutely cutting off his milk business from the associations thus discovered, and the arrangements made were such that, on the evening of 18th August, the Dairy Company in town was advised that the process of scalding might be discontinued.

The second illustration occurred in the following circumstances:—

During the last week of February and the first week of March, 1900, several cases of scarlet fever occurred in association with the distribution of milk from two dairies, and will serve to illustrate the complex conditions which so frequently obscure the origin of an infection. The cases in Glasgow were 20 in number, and 2 only of these were secondary to earlier cases occurring in the same household. The first sickness occurred on 16th February, the last on the 6th March. Associated with these were eight cases obtaining their milk from one or other of the implicated dairies, but residing in the Burgh of Pollokshaws, or in the immediately adjoining part of the County of Renfrew. All these bought milk at one or other of the two dairies, one of which kept several cows on the premises, and both of which obtained part of their supply from a common source. A careful enquiry into the various sources of supply and into the several channels of distribution raised a very strong presumption that the infection was obtaining access to both distributors through a supply driven from the country, and this impression was strengthened by the occurrence of three cases in two out of six other dairies supplied in part from the same source. But the most careful enquiry into the circumstances of work at the farms and along the line of distribution quite failed to reveal any completely satisfactory indication of the point at which the infection had gained access to the supply, and the incident falls to be recorded solely as an illustration of the frequently entangled character of the sources of milk infection.

DIPHTHERIA.

465 cases of diphtheria were registered during 1899, of which 243, or 52 per cent., were treated in hospital; and 540 during 1900, of which 321, or 59 per cent., were treated in hospital. 109 deaths occurred in the former and 125 in the latter year, representing respectively death-rates of 146 and 165 per million living.

For several periods the death-rate has been as follows:—

1881-90, ...	280
1891-97, ...	264
1898-1900, ...	155

In comparing these average rates there is a decrease of the disease in the last period which obscures the slightly greater prevalence in 1899, and again in 1900, as compared with 1898; but it is to be observed that the case-mortality of both later years has not increased. This is shown in the following Table, which gives the relative prevalence of the disease and the case-mortality for several periods:—

TABLE XV.—Diphtheria and Membranous Croup.

Year.	Cases.			Deaths.			Case-mortality per cent.
	Number.	Rate per Million.	Per Cent. treated in Hospital.	Number.	Rate per Million.	Per Cent. treated in Hospital.	
1886-90	...	...	...	...	466	...	...
1891	465	822	16·1	131	232	23·7	28·2
1892	575	861	14·1	195	292	15·9	33·9
1893	828	1,228	19·0	246	365	25·6	29·7
1894	967	1,414	26·1	290	424	30·0	30·0
1895	654	944	28·4	137	198	19·0	21·0
1896	601	854	31·6	116	165	30·2	19·3
1897	462	647	32·9	127	178	30·7	27·5
1898	433	592	59·6	113	154	47·8	26·0
1899	465	622	52·3	109	146	31·2	23·5
1900	540	715	59·4	125	165	44·0	23·1

The tendency of the disease to attain an increased prevalence in the first half of the decade has happily not been maintained, but its increasing prevalence in English towns, and especially its obvious extension throughout the northern counties of England, will be remembered.

The increasing case-rate and decreasing case-mortality here indicated in the years 1899-1900 brings into prominence the relation of many cases of simple "croup" (which by the Registrar-General is included among diseases of the respiratory organs) to diphtheria as a specific infectious disease, and the value of the increased facilities now offered by the Health Committee in the recognition of the true character of these cases by bacteriological examination. In the following Table simple "croup" as a cause of death has been taken out of the respiratory class (Registrar-General's figures), in order to show the almost uninterrupted decline in the number of deaths now attributed to this form of disease. Diphtheria and croup together, it will also be observed, have decreased in a somewhat similar manner, so that the increased diphtheria rate is, to some extent, complementary to the decrease in croup, and many cases are now definitely classified as diphtheria which formerly, and especially if they ended in recovery, were regarded as simple croup.

Glasgow.—Deaths and Death-rates per Million from Diphtheria and Croup from 1895 to 1900.*

Year.	Deaths.			Death-rate per Million.		
	Diphtheria.	Croup.	Diphtheria and Croup.	Diphtheria.	Croup.	Diphtheria and Croup.
1895	112	73	185	161	105	266
1896	83	54	137	118	76	194
1897	97	48	145	136	67	203
1898	103	29	132	142	40	182
1899	106	17	123	145	23	168
1900	130	19	149	175	25	200

* Registrar General's Annual Reports.

The death-rate per 100,000 in Glasgow and in several other large towns for the 10 years 1890-99, and for 1900, is as follows:—

	1890-99.	1900.
Glasgow,	**21**	**18**
Edinburgh,	22	21
Dundee,	20	13
Aberdeen,	19	20
Paisley,	21	19
Greenock,	19	38
Liverpool,	20	26
Manchester,	21	18
Birmingham,	24	14
Leeds,	23	59
Sheffield,	29	126
London,	49	34

The seasonal prevalence of the disease is shown in the following Table by stating the numbers registered monthly and their rate per 100,000 of the population calculated as an annual average:—

TABLE XVI.

GLASGOW.—DIPHTHERIA AND MEMBRANOUS CROUP.—CASES REGISTERED AND ANNUAL CASE-RATE PER 100,000 LIVING FOR EACH MONTH FOR THE EIGHT YEARS 1890-7, AND FOR 1898, 1899, AND 1900.

MONTH.	CASES REGISTERED.				ANNUAL CASE-RATE PER 100,000.			
	1890-7.	1898.	1899.	1900.	1890-7.	1898.	1899.	1900.
January,	495	46	58	53	**111**	**74**	**92**	**83**
February,	497	39	33	42	**123**	**69**	58	**72**
March,	462	39	32	53	**103**	**63**	50	**83**
April,	359	26	34	42	83	43	55	67
May,	342	24	30	48	76	39	47	**74**
June,	304	22	29	22	70	37	47	35
July,	228	19	26	27	51	31	41	42
August,	383	33	37	25	86	53	58	39
September,	492	34	35	50	**114**	57	52	**80**
October,	554	54	42	61	**124**	**87**	**66**	**95**
November,	534	46	60	58	**123**	**76**	**98**	**93**
December,	487	51	52	59	**109**	**82**	**82**	**92**
Year,	5,137	433	465	540	98	59	62	72

In 1890-7 the mean of the year was exceeded in the first three and last four months—February, October, and November being productive of cases much in excess of the other months, and October presenting the absolute maximum.

In 1898 the number occurring in September was below the mean for the year. In 1899 February and March fell below the mean of the year, while in 1900 the number occurring in May is slightly in excess of the mean.

DISTRICT MORTALITY.

In the following Table the number of cases occurring in each district and the rate per 100,000 living is stated, also the number of deaths in 1899-1900, with the death-rate for several periods. The distribution of the disease in the several districts will best be followed in the column showing the case-rate per 100,000 of population.

TABLE XVII.

GLASGOW.—DIPHTHERIA AND MEMBRANOUS CROUP.

SANITARY DISTRICTS.	Cases.				Deaths.						
	Number.		Rate per 100,000.		Number.		Rate per Million.				
	1899.	1900.	1899.	1900.	1899.	1900.	1899.	1900.	1881-90.	1891-97.	1898.
— Blythswood,	18	14	64	51	3	1	107	36	230	237	141
1. Exchange,	6	14	25	57	1	...	45	...	230	287	46
2. Port-Dundas,	3	5	64	93	1	1	214	186	220	438	673
3. High Street and Closes, W.,	1	6	10	59	...	2	...	199	190	212	99
4. St. Rollox,	8	11	49	68	2	...	123	...	350	187	60
5. Bellgrove and Dennistoun,	49	64	64	81	11	12	146	154	300	274	83
6. High Street and Closes, East,	7	1	98	15	2	1	372	188	130	93	184
7. Greenhead and London Road,	39	46	62	72	8	8	129	128	240	260	168
8. Barrowfield,	14	18	52	66	3	4	113	148	190	243	403
9. Monteith Row,	1	1	24	25	...	1	...	253	290	229	...
10. St. Andrew's Square,	4	5	91	113	1	1	263	262	360	285	258
11. Calton,	8	11	36	50	1	6	48	290	180	268	286
12. St. Enoch Square,	2	...	59	...	...	1	...	431	370	225	354
13. Brownfield,	3	4	80	110	1	2	290	596	180	377	293
14. Bridgegate and Wynds,	4	2	88	49	2	2	440	488	120	188	...
15. Woodside,	32	54	45	76	9	13	128	184	340	276	87
16. Cowcaddens,	5	9	29	52	3	3	182	177	320	330	602
17. Kelvinhaugh and Sandyford,	33	25	101	78	8	5	253	161	300	250	129
18. Anderston,	14	21	49	75	5	12	178	433	350	313	176
19. Kingston,	19	24	47	60	3	11	75	275	260	216	151
20. Laurieston,	8	3	89	35	3	2	346	238	320	407	229
21. Hutcheson Square,	52	54	76	78	7	12	102	174	370	268	115
22. Gorbals,	7	6	53	46	3	4	244	329	250	194	88
23. Springburn and Rockvilla,	30	32	86	89	10	7	287	195	290	329	213
24. Govanhill,	16	19	72	80	1	3	45	126	...	321	143
25. Crosshill,	8	4	106	49	...	...	...	...	...	300	...
26. Langside and Mount Florida,	13	20	88	126	...	1	...	65	...	179	75
27. Pollokshields, E., and Strathbungo,	13	5	95	36	3	...	220	...	...	247	74
28. Pollokshields, W., and Bellahouston,	1	6	17	101	...	...	...	...	...	391	...
29. Hillhead,	4	3	47	35	...	1	...	117	...	178	116
30. Kelvinside,	1	7	14	89	...	...	...	...	...	112	...
31. Maryhill,	25	31	74	90	11	3	339	90	...	354	198
32. Possilpark and Barnhill,	17	15	86	73	5	5	268	257	...	383	222
— Institutions and Harbour,	...	...	...	...	2	1	...	...	...	...	...
CITY,	465	540	62	71	109	125	146	165	280	264	154

In 1899 it was relatively most prevalent in District 24, and in 1900 in District 25, both in the added districts.

In districts 2, 13, 16, and 22, which we formerly saw with an increasing death-rate from all causes in several periods, the movement of the diphtheria death-rate has been—

	1881-90.	1891-97.	1898-1900.
2. Port-Dundas, ...	220	**438**	**358**
13. Brownfield, ...	180	**377**	**393**
16. Cowcaddens, ...	320	**330**	320
22. Gorbals, ...	**250**	194	220
City, ...	**280**	264	155

ENTERIC FEVER.

1,080 cases of enteric fever were registered during 1899, and 1,013 during 1900, compared with 1,212 in 1898. The number of deaths from this disease in 1899 was 178, and in 1900, 158, representing a death-rate respectively of ·238 and ·209 per 1,000 living. In 1899, 89 per cent., and in 1900, 85 per cent. of the cases were removed to hospital, as compared with 86 per cent. in 1898.

The average annual death-rate for several periods has been as follows:—

1881-90, ... = ·230 per 1,000.
1891-97, ... = ·199 „
1898-1900, ... = ·253 „

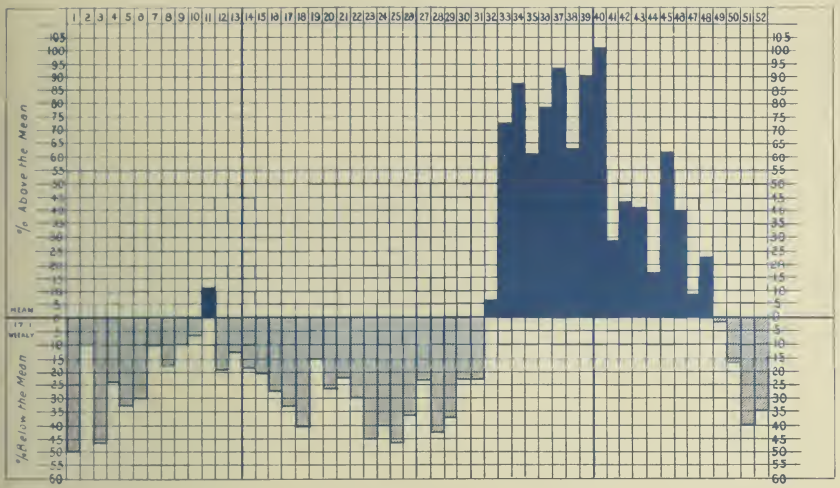
The following Table gives certain particulars regarding enteric fever for each year since 1891:—

TABLE XVIII.—Glasgow.—Enteric Fever, 1891-1900.

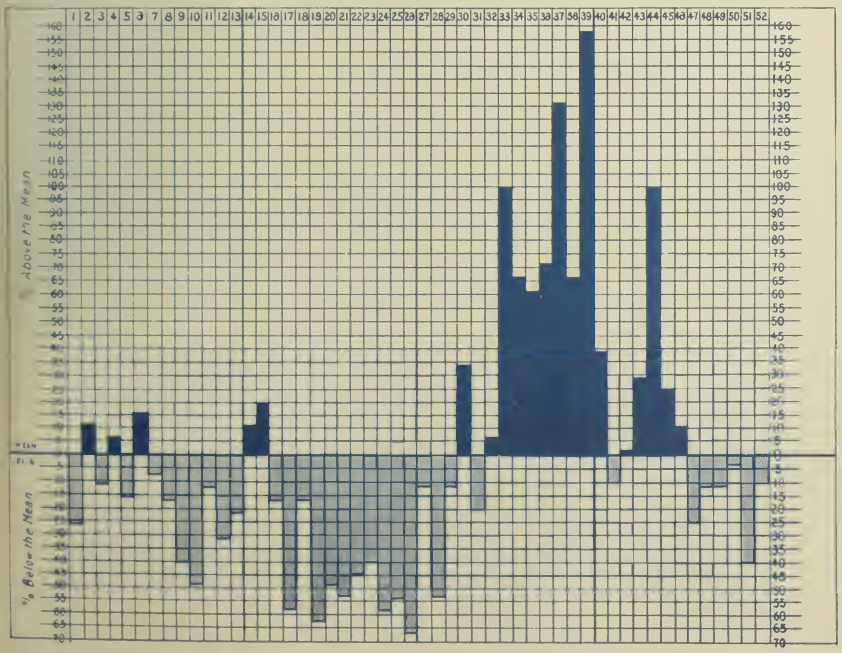
Year.	Cases.			Deaths.			Case-mortality per cent.
	Number.	Rate per Million.	Per cent. treated in Hospital.	Number.	Rate per Million.	Per cent. occurring in Hospital.	
1891	784	1,386	59·8	123	218	69·9	15·7
1892	590	884	58·3	101	151	67·3	17·1
1893	703	1,043	60·9	120	178	68·3	17·1
1894	810	1,184	72·2	151	221	76·2	18·6
1895	797	1,150	74·5	122	176	73·0	15·3
1896	691	982	71·1	145	206	72·4	21·0
1897	905	1,265	74·6	174	243	78·8	19·2
1898	1,212	1,657	86·6	228	312	86·0	18·8
1899	1,080	1,445	89·4	178	238	84·3	18·4
1900	1,013	1,340	85·1	158	209	85·4	15·6

Enteric Fever Notifications.

Shewing Weekly Number in Relation to Weekly Mean of Years 1893-99.



Enteric Fever Notifications 1899.



For comparison with other towns the following Tables are given :—

Death-rate per 100,000 from Enteric Fever in certain Larger Towns of Scotland and England for Several Periods.

	1891-7.	1898.	1899.	1900.
Glasgow, ...	20	**31**	**25**	22
Edinburgh, ...	15	10	14	9
Dundee, ...	17	5	13	4
Aberdeen, ...	9	10	15	9
Leith, ...	13	11	10	4
Paisley, ...	31	54	42	24
Greenock, ...	12	35	15	20
	1888-97.	1898.	1899.	1900.
London, ...	15	13	18	17
Liverpool, ...	35	26	31	21
Manchester, ...	26	23	14	14
Birmingham, ...	16	22	24	35
Leeds, ...	22	22	17	20
Sheffield, ...	23	40	51	28

Seasonal Variations of the Disease.

In the accompanying diagram the curve of enteric fever prevalence throughout the year is shown by stating the average number of notifications received weekly as a percentage above or below the mean number of weekly notifications received during the years 1893-99. Calculations of this character derive their value from the number of observations on which they are based, and when these are sufficiently numerous, the resultant should represent, with fair accuracy, the seasonal fluctuation, by contrast with which any departure in abnormal prevalence such, as as would be created by purely epidemic influences, should readily be indicated. Primarily, seasonal variations of disease are wholly secular in their character, the amplitude only of the movements representing the suitability or otherwise of the local conditions on which they operate. The autumnal increase in the prevalence of enteric fever and diarrhœa is a constant feature, the extent of the increase, however, is the expression of these local conditions.

The curve of enteric fever prevalence is shown on the diagram for the seven years to be a double one, in the sense that the disease displays a tendency towards increasing prevalence in spring and again in autumn. But the spring increase only tends to exceed the mean weekly prevalence during part of March, whereas the autumn rise is continuously in excess of the mean from the 32nd to about the 48th week, reaching its maximum midway between these two, when the weekly number of cases is about twice the weekly average for the year.

District Distribution.

The district distribution of the disease is shown in the next Table (page 44), in which are stated the number of cases registered and of deaths occurring in each of the districts during 1899 and 1900, with the case-rate for corresponding years, and the death-rate for several periods.

Of the twelve districts [1] to which I had occasion to direct attention in the Report for 1898, because the average death-rate for 1891-7 was in excess of that for 1881-90, a reduction has occurred in seven, [2] while five have a higher average rate in 1898-1900 than in 1891-7. These are High Street and Closes West (3), St. Andrew's Square (10), and Brownfield (13), in the Central District; St. Rollox (4), in the Northern; and Greenhead and London Road (7), in the Eastern.

[1] Viz., High Street and Closes West, High Street and Closes East, St. Andrew's Square, Calton, St. Enoch Square, and Brownfield, in the *Central District;* Greenhead and London Road and Barrowfield, in the *Eastern District;* Port-Dundas, St. Rollox, and Cowcaddens, in the *Northern District;* and Laurieston, in the *Southern District.*

[2] Viz. (*a*) Port-Dundas, Barrowfield, and Laurieston had a lower average rate in 1898-1900 than in 1881-90; and

(*b*) High Street and Closes East, Calton, St. Enoch Square, and Cowcaddens, than in 1891-7.

TABLE XIX.

Glasgow.—Enteric Fever.

Sanitary Districts.	Cases.				Deaths.						
	Number.		Rate per 100,000.		Number.		Rate per Million.				
	1899.	1900.	1899.	1900.	1899.	1900.	1899.	1900.	1881-90.	1891-97.	1898.
— Blythswood, ...	21	24	74	87	2	2	71	72	160	139	317
1. Exchange, ...	27	31	111	127	3	2	134	89	210	177	462
2. Port-Dundas,...	3	12	64	**222**	...	2	...	372	330	**407**	224
3. High Street and Closes, W., ...	13	14	131	**138**	3	5	**304**	**498**	120	**303**	**296**
4. St. Rollox, ...	50	29	**307**	**179**	9	4	**552**	**247**	160	**163**	**786**
5. Bellgrove and Dennistoun, ...	207	94	**270**	119	31	16	411	206	260	217	413
6. High Street and Closes, E., ...	5	11	70	**161**	1	2	186	376	130	**326**	367
7. Greenhead and London Road, ...	159	80	**251**	125	24	12	**388**	**191**	260	**271**	**472**
8. Barrowfield, ...	63	42	**237**	**155**	9	6	338	222	300	**343**	256
9. Monteith Row, ...	7	3	**173**	76	3	...	740	...	230	163	...
10. St. Andrew's Square, ...	6	**1**	136	23	1	1	**263**	**262**	160	**178**	**258**
11. Calton, ...	44	53	**199**	**242**	11	5	524	242	240	**374**	286
12. St. Enoch Square, ...	8	12	**235**	**447**	...	2	...	862	150	**404**	...
13. Brownfield, ...	6	9	**160**	**246**	1	2	**290**	**596**	210	**251**	**1,760**
14. Bridgegate and Wynds, ...	6	6	132	**146**	1	2	220	488	320	268	204
15. Woodside, ...	47	135	67	**190**	8	26	114	368	190	124	219
16. Cowcaddens, ...	25	25	**147**	**144**	3	4	182	236	160	**295**	301
17. Kelvinhaugh and Sandyford, ...	31	29	95	90	2	...	63	...	230	128	354
18. Anderston, ...	20	31	70	110	5	5	178	180	270	109	387
19. Kingston, ...	73	58	**181**	**144**	9	11	225	275	200	187	176
20. Laurieston, ...	3	8	33	92	1	...	116	...	220	**342**	229
21. Hutcheson Square, ...	104	67	**151**	97	24	9	349	130	220	157	318
22. Gorbals, ...	23	22	**175**	**170**	2	6	162	494	340	291	265
— Springburn and Rockvilla, ...	60	58	**172**	**162**	13	8	373	223	210	189	365
23. Govanhill, ...	13	12	58	50	2	2	89	84	...	137	286
24. Crosshill, ...	3	3	40	37	...	...	...	...	...	210	...
25. Langside and Mount Florida, ...	7	6	47	38	...	1	...	65	...	150	...
26. Pollokshields, E., and Strathbungo,	1	4	7	29	...	...	...	...	...	87	...
27. Pollokshields, W., and Bellahouston,	3	4	52	68	1	...	173	...	...	39	...
28. Hillhead, ...	2	5	23	59	...	...	...	...	...	59	...
29. Kelvinside, ...	3	8	42	101	1	1	152	136	...	...	...
30. Maryhill, ...	26	48	77	**140**	2	5	62	149	...	166	**199**
31. Possilpark and Barnhill, ...	11	69	56	**335**	1	8	54	**411**	...	232	167
— Institutions and Harbour, ...	...	...	...	...	5	9	...	...	...	...	...
CITY, ...	1,080	1,013	145	134	178	158	238	209	230	199	312

Outbreak in Connection with Milk Supply.

About one-half of the enteric fever cases notified during the first fortnight of July, 1900, occurred under the following circumstances:—

Early in the fortnight attention was attracted to the occurrence of enteric fever among the customers of a dairyman carrying on business near New City Road, whose principal source of supply was a farm near Glasgow, but was supplemented occasionally in the afternoons by a few gallons obtained from another source. The cases numbered 34. The first sickness began on June 17th, the last on July 2nd. The cases comprise about an equal number of both sexes, the ages varying from three to forty-five years. No other cases were recorded in the neighbourhood during that time, and the milk distribution was the only circumstance common to all the patients. Each member of the dairyman's family, and all the milk distributors, were examined and found well. It was thus found necessary to go further along the course of the milk supply, and, on examining the farm from which it was chiefly obtained the following conditions regarding the water supply were disclosed:—For some time previous to 24th May it had been obtained from Loch Katrine, but on that date this was shut off, and recourse was had to a mixed supply obtained from three sources, two of which were at a considerable distance. These were:—(1) Loch Katrine water, obtained at another dairy; (2) a well about two miles off; and (3) a disused well situated in a field on the farm, said by the farmer to contain surface water. This change in the water supply occurred on 24th May, and the first patient sickened on 17th June. The water obtained from the well on the farm was stopped on 4th, and the water from the other well on 9th July. It falls to be noted that less than one-half of the milk produced on this farm was distributed through the dairy in question, the remainder being sent to several dairies, in connection with only one of which, however, did any case occur.

With this dairy and the one chiefly implicated the milk tins were interchangeable, while a third dairy supplied from the same farm had marked butts for its own use.

Several relatives of the farmer residing elsewhere were known to have suffered from enteric fever some time prior to this outbreak, and there was an unverified impression that a member of one of these families, who made a prolonged stay with the farmer about or prior to the time the outbreak occurred, had passed through an unrecognised attack some time previously, but a Widal test applied when this outbreak occurred proved, I believe, negative. Owing to the interval which elapsed, however, between the illness and the application of the test, the negative character of the latter loses some of its value, and the outbreak is important as an illustration of the danger attending the use of water from impure sources in any of the operations connected with dairy work.

TYPHUS FEVER.

16 cases of typhus fever were registered in 1899, and 4 deaths occurred. In 1900, 72 cases were registered, and 17 deaths occurred. All the cases were treated in hospital.

The death-rate for several periods is as follows:—

1881-90,	·040 per 1,000 living.	
1891-97,	·018	,,
1898,	·008	,,
1899,	·005	,,
1900,	·023	,,

Compared with other large towns, the death-rate in the ten years 1890 to 1899, and in 1900, per 100,000 living, was as follows:—

	1890-99.	1900.
Glasgow, ...	**2**	**3**
Edinburgh, ...	1	1
Dundee, ...	3	4
Aberdeen, ...	1	—
Paisley, ...	2	—
Greenock, ...	4	2

The districts in which the cases occurred and the number occurring in each is as follows: —

District.	1899.	1900.	District.	1899.	1900.
Exchange, ...	...	7	Cowcaddens, ...	...	4
High Street and Closes, West,	1	12	Kelvinhaugh and Sandyford,	1	...
Bellgrove and Dennistoun, ...	2	11	Anderston, ...	5	...
High Street and Closes. East,	...	2	Kingston, ...	...	4
Greenhead and London Road,	...	6	Laurieston, ...	...	3
Barrowfield, ...	...	6	Hutcheson Square, ...	1	6
St. Andrew's Square, ...	...	1	Gorbals, ...	1	1
Calton, ...	2	3	Springburn and Rockvilla, ...	...	1
Brownfield, ...	3	1	Govanhill, ...	...	4

There is reason for believing that the comparative rarity of the disease creates no inconsiderable barrier to its ready recognition. Time and again illustrations occur in which the case recognised is discovered in association with earlier illnesses regarded during their currency as influenza or some passing form of indisposition of a non-specific character, of which an illustration is afforded by the following history, taken from my report to the Health Committee for the fortnight ending 5th May, 1900:—

Eight cases of typhus have been removed to hospital during the fortnight, and the circumstances now disclosed quite distinctly suggest that a continuous strain of typhus fever has been present in Glasgow and its neighbourhood probably since January last. Dealing with the cases as known, the following are the facts:—

In the week ending 12th February three cases occurred in the Burgh of Govan.

In the week ending 5th March one case was notified in Whitevale Street, Glasgow, a spirit salesman, and was referred to in my report of 10th March. This was the first case known to have occurred in Glasgow since July, 1899.

In the week ending 12th March another case occurred in Govan.

In the week ending 26th March one case was notified in Glasgow, in the Eastern District. None of these had any traceable association with each other.

On 7th April I saw, with the medical attendant, a patient suffering from the disease at 195 Crookston Street; and a fortnight thereafter, from the same street (225), a man was removed to hospital, notified as enteric fever. Two days later, however, this also was recognised to be typhus fever, and, on enquiry, it was discovered that the family had formerly lived at 55 Dale Street, and that illness had

been present almost continuously among its members from about the New Year—all the younger members who had been attacked recovering, while the father and mother both died, the cause of death being certified in the one case as "influenza and pneumonia," and in the other "cerebritis—pulmonary congestion." Consequent on the father's death, which occurred on 10th April, the remaining members of the family removed to the friend's house in Crookston Street from which the supposed enteric patient had been removed to hospital; but when the nature of the disease was there recognised, visitation of the land at Dale Street resulted in one further illness from typhus fever being discovered in a neighbour's house, while in another family residing at Nelson Street still another case was discovered. This last patient was a relative of the family formerly resident at Dale Street, but was not a visitor, although her mother had helped to nurse the father of the family in the illness which proved fatal to him.

Reception House Cases—The Conditions of Segregation.

In respect to the numbers occurring in 1900, it falls to be observed that 22 of them, although relegated to the districts of their usual residence, were under observation in the reception house at the time of sickening, owing to association with known cases. Of the 15 cases reported during the month of November, three were in persons thus under observation, while of the twenty-nine registered in December, eighteen were of this class—one was a nurse in the typhus ward at Belvidere, and one an epidemic inspector on duty in connection with typhus cases. The segregation of contacts with typhus fever requires the utmost care. The aim should be to keep each group as far as possible separate. No immunity can be offered them such as re-vaccination confers on persons similarly placed owing to contact with smallpox, and a single case occurring among a group of contacts establishes anew the risk of infection for the other members of it, which can only be met by beginning another period of observation, so that the residence of individuals may be prolonged indefinitely. An illustration is afforded by the following series of cases:—A. K. and J. S., were placed under observation on 21st November, and Mrs. K. on 26th November; A. K. was removed to hospital on 22nd November, J. S. on 25th November, and Mrs. K. on 28th November. As a result, dismissals were suspended, and on 10th December H. M'L. was discovered to have developed the disease, twenty-one days after admission; while on 11th December three others sickened, after twenty-one and nineteen days' residence respectively; again, on 13th December, another case sickened, after twenty-two days' residence; on 14th December, one case, after twenty-five days' residence; on 15th December, one case, after fifteen days' residence, and consequently not quite beyond the maximum incubation period, but after an interval longer than the average; and one case on 19th December, twenty-six days after removal to the reception house. All these cases, save the possible exception noted, owe their attack to association with the families forming the first of this series, or with the cases arising secondary to them. In order to detect the first indication of febrile symptoms among contacts, the use of the thermometer nightly to discover the earliest indications of the onset of the disease is a necessity.

Seasonal Distribution.

With the disease present only in sporadic form, seasonal variations lose completely the features which characterise its epidemic prevalence. Winter and overcrowding determine these. But in 1899 all the cases occurred between February and July, in 1900, 57 of the cases occurred in the last 6 months of the year.

District Distribution.

The deaths and death-rates for several periods in each of the sanitary districts are as follows:—

TABLE XX.

GLASGOW.—TYPHUS.

SANITARY DISTRICTS.	DEATHS.		DEATH-RATES PER MILLION.				
	1899.	1900.	1899.	1900.	1881-90.	1891-7.	1898.
— Blythswood, ...	...	...	...	...	20	5	...
1. Exchange, ...	...	2	...	89	40	...	...
2. Port-Dundas, ...	...	...	...	...	90	...	...
3. High Street and Closes, W., ...	...	2	...	199	50	30	...
4. St. Rollox, ...	...	...	...	...	60	9	...
5. Bellgrove and Dennistoun, ...	...	3	...	39	40	9	...
6. High Street and Closes, E., ...	...	...	...	...	50	23	...
7. Greenhead and London Road. ...	...	1	...	16	60	27	17
8. Barrowfield, ...	...	...	...	...	50	26	110
9. Monteith Row, ...	...	...	...	...	60	65	...
10. St. Andrew's Square, ...	...	...	...	...	80	107	...
11. Calton, ...	1	1	48	48	50	20	...
12. St. Enoch Square, ...	...	...	...	...	30	45	...
13. Brownfield, ...	1	...	290	...	120	...	...
14. Bridgegate and Wynds, ...	...	...	...	...	70	161	...
15. Woodside, ...	...	...	...	...	20	11	...
16. Cowcaddens, ...	...	1	...	59	80	54	...
17. Kelvinhaugh and Sandyford,... ...	1	...	32	...	30	...	...
18. Anderston, ...	...	...	...	...	40	5	70
19. Kingston, ...	...	2	...	50	40	49	...
20. Laurieston, ...	...	2	...	238	50	16	...
21. Hutcheson Square, ...	...	2	...	29	50	15	...
22. Gorbals, ...	1	...	81	...	30	11	...
— Springburn and Rockvilla, ...	...	...	...	...	20	5	...
23. Govanhill, ...	...	...	...	...	...	18	...
24. Crosshill, ...	...	...	...	...	...	...	...
25. Langside and Mount Florida.... ...	...	...	..	...	...	...	...
26. Pollokshields, E., and Strathbungo, ...	...	...	...	...	...	...	...
27. Pollokshields, W., and Bellahouston,...	...	...	...	...	...	...	...
28. Hillhead, ...	...	...	...	...	...	...	...
29. Kelvinside, ...	...	...	...	...	...	...	...
30. Maryhill, ...	...	...	...	...	...	7	...
31. Possilpark and Barnhill, ...	...	...	...	...	...	...	...
— Institutions and Harbour, ...	...	1	...	...	...	..	...
CITY, ...	4	17	5	23	40	18	8

WHOOPING-COUGH.

The deaths from whooping-cough during 1899 numbered 323, and during 1900, 694, equal to a death-rate in 1899 of ·440, and in 1900 of ·933 per 1,000 living.

The average annual death-rate during several periods is shown in the following Table :—

1881-90,	...	1·150	per 1,000 living.
1891-97,	...	·926	„
1898-1900,	...	·770	„

In comparison with other large towns the rate for the ten years 1890-99, and for 1900, was as follows :—

	1890-99.	1900.
Glasgow,	**94**	**97**
Edinburgh,	55	20
Dundee,	61	23
Aberdeen,	60	63
Paisley.	62	47
Greenock,	58	123
Liverpool,	59	84
Manchester,	56	68
Birmingham,	51	58
Leeds,	40	38
Sheffield,	50	55
London,	53	43

The total deaths, deaths occurring in hospital, and proportion these form of the total deaths, are shown in the following Table :—

TABLE XXI.—Whooping-Cough.

Year.	Deaths.		Death-rate per Million.	Percentage of Deaths occurring in Hospital.
	Total Number.	Number occurring in Hospital.		
1895	614	48	886	7·8
1896	643	68	914	10·6
1897	842	80	1,177	9·5
1898	703	86	961	12·2
1899	323	23	432	7·1
1900	694	67	918	9·7

The number of deaths occurring at several age-periods is already stated in Tables at pages 22-24.

In the several sanitary districts the deaths and death-rates for several periods are given.

TABLE XXII.

GLASGOW.—WHOOPING-COUGH.

SANITARY DISTRICTS.	DEATHS.		DEATH-RATES PER MILLION.				
	1899.	1900.	1899.	1900.	1881-90.	1891-7.	1898.
— Blythswood, ...	5	24	178	869	520	495	211
1. Exchange, ...	5	27	224	1,201	880	654	415
2. Port-Dundas, ...	2	8	228	1,487	1,600	1,252	897
3. High Street and Closes, W., ...	3	14	304	1,395	1,160	1,002	592
4. St. Rollox.	19	18	1,166	1,110	1,310	1,193	544
5. Bellgrove and Dennistoun, ...	28	71	371	913	1,120	955	1,061
6. High Street and Closes, E., ...	2	7	372	1,316	1,650	1,212	551
7. Greenhead and London Road, ...	35	84	565	1,340	1,230	1,140	1,213
8. Barrowfield, ...	3	42	113	1,552	1,390	1,150	1,245
9. Monteith Row, ...	1	4	247	1,012	710	979	233
10. St. Andrew's Square, ...	...	4	...	1,049	850	963	775
11. Calton, ...	13	28	619	1,352	1,560	1,344	1,097
12. St. Enoch Square, ...	2	...	673	...	550	1,436	...
13. Brownfield, ...	...	5	...	1,489	1,170	1,296	2,348
14. Bridgegate and Wynds, ...	1	2	220	488	1,410	1,235	1,841
15. Woodside, ...	29	69	413	976	1,020	784	772
16. Cowcaddens, ...	9	36	546	2,127	1,930	1,545	1,503
17. Kelvinhaugh and Sandyford, ...	10	12	316	387	650	618	515
18. Anderston, ...	25	27	889	974	1,550	1,197	2,496
19. Kingston, ...	15	52	375	1,299	900	734	854
20. Laurieston, ...	8	5	924	595	1,530	1,074	2,407
21. Hutcheson Square, ...	28	68	408	985	1,210	1,165	1,502
22. Gorbals, ...	9	12	731	989	1,230	1,335	972
— Springburn and Rockvilla, ...	31	16	891	446	1,340	1,128	943
23. Govanhill, ...	5	11	223	463	Annexed to City in November, 1891.	742	812
24. Crosshill, ...	2	2	266	247		90	739
25. Langside and Mount Florida, ...	2	2	139	129		179	450
26. Pollokshields, E., and Strathbungo, ...	1	1	73	72		116	221
27. Pollokshields, W., and Bellahouston,	1	...	173	...		235	178
28. Hillhead, ...	1	5	116	585		197	...
29. Kelvinside, ...	...	1	...	136		84	...
30. Maryhill, ...	16	21	493	626		971	562
31. Possilpark and Barnhill, ...	10	11	537	565		878	888
— Institutions and Harbour, ...	2	5	...	...	...	...	...
CITY, ...	323	694	432	918	1,150	926	961

DIARRHŒAL DISEASES.

In the Report for 1898 I referred to the necessity for considering the death-rate from diseases of this class under two separate methods of classification—our local method being necessary when district comparisons were to be established, while recourse to the Registrar-General's was necessary if we were to compare the rates for Glasgow and other towns.

In 1899 the Local Government Board required a classification somewhat approaching our own, and since then the subject has received some consideration from the Incorporated Society of Medical Officers of Health, with the view of introducing greater uniformity into the system than presently exists. The changes which the Local Government Board requirements have introduced will be seen in the following Table.

They affect solely the last three items on the list. Formerly our diarrhœal deaths included deaths from these causes and from gastritis only when under five years of age; now deaths from *gastritis* are wholly *excluded,* while deaths from the remaining three are included, but *at all ages.* When the return for the present year comes to be compiled, I purpose further including as diarrhœa these forms of intestinal or gastro-intestinal catarrh designated *intestinal* catarrh, *enteric* catarrh, *gastro-intestinal* catarrh, *gastro-enteric* catarrh, which are presently included by the Registrars-General of both countries, and are also included in the scheme proposed by the Incorporated Society of Medical Officers of Health.

Classification of Diarrhœa Deaths, 1901.

	Classification.									
	Proposed.		Glasgow Sanitary Department.		English Registrar-General—Old		English Registrar-General—New.		Scottish Registrar-General.	
	Included.	Excluded.	Included.	Excluded.	Included.	Excluded.	Included.	Excluded.	Included.	Excluded.
Diarrhœa, with *ill-defined* cause, such as— Atrophy, Debility, Marasmus, Thrush, Convulsions, Teething, Old Age, Senile Decay,	1	...	1	...	1	...	1	...	1	...
Diarrhœa, with *well-defined* cause, such as— Phthisis, Tuberculosis, Tuberculosis Peritonitis, Pneumonia, Cancer, &c.,	...	1	...	1	...	1	...	1	...	1
Cholera,	1	...	1	...	1	...	1	...		...
Dysentery,	1	...	1	...	1	...	1	...		...
Chol. Diarrhœa,	1	...	1	...	1	...	1	...		...
Dysenteric Diarrhœa,	1	...	1	...	1	...	1	...		...
Intestinal Catarrh,	1	...	...	1	1	...	1	...	1	...
Enteric Catarrh,	1	...	...	1	1	...	1	...		...
Gastro-Intestinal Catarrh,	1	...	...	1	1	...	1	...		...
Gastro-Enteric Catarrh,	1	...	...	1	1	...	1	...		...
Epidemic Enteritis,	1	...	1	...	...	...	1	...		...
Zymotic Enteritis,	1	...	1	...	...	...	1	...		...
Gastric Catarrh,	...	1	...	1	...	1	...	1	...	1
Gastro Enteritis,	...	1	1[1]	...	...	1	...	1	...	...
Muco Enteritis,	...	1	1[1]	...	...	1	...	1	...	...
Enteritis,	...	1	1[1]	...	...	1	...	1	...	...

[1] These are to be included among Diarrhœal Deaths in Local Government Board Return.

These alterations will expose any rigid comparison of the present death-rates from these causes with past periods to some degree of error, but the error will be limited chiefly to the rate of increase or decrease, either for the City, or for its several districts; the relative position of districts being but little affected by the change. A glance at the column in the Tables containing district death-rates will show that under both systems of classification the districts with the higher range of death-rates are much the same in both periods.

According to this altered system of classification, the deaths registered as due to diarrhœa in 1899 numbered 932, and in 1900, 562, representing a death-rate of 1·247 and ·744 respectively per 1,000 living.

For several periods the diarrhœal rate has been as follows:—

1881-90,	·700	per 1,000 living.
1891-97,	·785	„
1898[1]-1900,	·977	„

We may exclude to some extent the effect of this altered method of classification by looking at the rates as estimated by the Registrar-General for several years, and shown in the following Table, in which that for Glasgow is compared with those of other larger towns.

Death-rate per 100,000 from Diarrhœa in the Principal Towns of Scotland, for the Seven Years 1891-97, and for 1898, 1899, and 1900.

	1891-7.	1898.	1899.	1900.
Glasgow,	**56**	**71**	**83**	**46**
Edinburgh,	35	56	60	39
Dundee,	78	94	94	76
Aberdeen,	44	55	55	52
Leith,	42	79	68	36
Paisley,	53	94	96	54
Greenock,	72	98	144	58

Death-rate per 100,000 from Diarrhœa in certain English Towns for the Ten Years 1888-97, and for 1898, 1899, and 1900.

	1888-97.	1898.	1899.	1900.
London,	67	97	93	78
Liverpool,	117	154	87	144
Manchester,	110	184	183	139
Birmingham,	111	136	167	121
Leeds,	110	122	94	105
Sheffield,	121	189	158	152

The above Tables are compiled from the Registrar-General's Annual Reports.

[1] Deaths prior to 1899 are not on same basis.

TABLE XXIII.

Age-Incidence of Diarrhœal Deaths—Seasonal Variations.

For the two years (1899-1900) of uniform classification these may be stated together as follows:—

1899.	Under 1 year.	1-5.	5-15.	15-20.	20-25.	25-60.	60 years and upwards.
1st Quarter, ...	43	19	1	...	1	11	2
2nd ,, ...	49	21	6	...	1	10	5
3rd ,, ...	430	124	13	1	1	34	39
4th ,, ...	72	25	6	1	...	8	9
Totals, ...	594	189	26	2	3	63	55
1900.							
1st Quarter, ...	35	14	7	1	1	14	12
2nd ,, ...	37	16	3	1	1	11	13
3rd ,, ...	184	43	10	...	2	18	15
4th ,, ...	77	23	5	...	1	6	12
Totals, ...	333	96	25	2	5	49	52

It will also be observed that in 1899 72 per cent. of the diarrhœal deaths under 1 year occurred in the summer (3rd) quarter of the year, and in 1900 this proportion was 55 per cent.

With regard to the seasonal increase, the number of deaths in relation to the mean temperature of the air may thus be shown :—

		1899.		1900.	
	Average Mean Temperature of 32 Years in Shade.	Mean Temperature in Shade.	Deaths occurring under 1 Year.	Mean Temperature in Shade.	Deaths under 1 Year.
June,	55·2	58·1	21	56·3	22
July,	57·5	58·9	62	58·7	46
August,	56·8	**60·4**	**185**	**56·0**	**96**
Sept.,	52·9	52·1	183	53·1	42

District Mortality.

The incidence of mortality in the several sanitary districts is shown in the following Table. On page 22 I had occasion to point out the relatively greater increase of infantile mortality in the added districts. Fatal diarrhœa in Glasgow is essentially a disease of infantile life, and the diarrhœal rates for those added districts should be read together with their infantile mortality rate.

TABLE XXIV.

Glasgow.—Diarrhœal Diseases.

Sanitary Districts.	Deaths.		Death-Rate per Million.				
	1899.	1900.	1899.	1900.	1881-90.	1891-7.	1898.
— Blythswood, ...	13	11	463	398	270	425	317
1. Exchange, ...	18	9	805	400	450	511	692
2. Port-Dundas, ...	12	4	**2,567**	**744**	870	**939**	1,570
3. High Street and Closes, W., ...	8	10	809	**996**	580	774	1,184
4. St. Rollox, ...	18	6	1,105	370	550	427	786
5. Bellgrove and Dennistoun, ...	96	44	**1,272**	566	560	699	826
6. High Street and Closes, E., ...	7	5	**1,302**	**940**	860	**979**	1,838
7. Greenhead and London Road, ...	113	103	**1,825**	**1,643**	890	**1,293**	1,431
8. Barrowfield, ...	58	47	**2,181**	**1,736**	1,120	**1,540**	2,123
9. Monteith Row, ...	6	...	**1,480**	...	460	620	466
10. St. Andrew's Square, ...	9	2	**2,371**	524	620	**1,035**	517
11. Calton, ...	37	20	**1,763**	**966**	990	**1,364**	1,193
12. St. Enoch Square, ...	4	...	**1,346**	...	490	**808**	709
13. Brownfield, ...	3	3	870	**893**	990	**1,129**	1,760
14. Bridgegate and Wynds, ...	3	3	661	732	1,210	**1.181**	613
15. Woodside, ...	69	39	982	551	540	533	801
16. Cowcaddens, ...	32	19	**1,943**	**1,123**	1,110	**1,447**	1,503
17. Kelvinhaugh and Sandyford, ...	11	11	348	355	320	359	579
18. Anderston, ...	53	31	**1,886**	**1,119**	810	**963**	1,266
19. Kingston, ...	42	20	1,049	500	540	706	578
20. Laurieston, ...	12	14	**1,386**	**1,666**	780	**1,074**	1,146
21. Hutcheson Square, ...	137	74	**1,994**	**1,072**	770	**919**	867
22. Gorbals, ...	34	14	**2,761**	**1,153**	960	1,367	1,855
— Springburn and Rockvilla, ...	32	18	919	501	590	663	1,186
23. Govanhill, ...	24	10	**1,072**	**421**	...	367	**908**
24. Crosshill, ...	6	2	**797**	**247**	...	30	**295**
25. Langside and Mount Florida, ...	5	1	**348**	65	...	254	**526**
26. Pollokshields, E., and Strathbungo, ...	3	2	**220**	144	...	218	**515**
27. Pollokshields, W., and Bellahouston,	2	3	**347**	**506**	...	117	**356**
28. Hillhead, ...	...	1	...	**117**	...	79	**349**
29. Kelvinside, ...	1	...	**152**	...	...	112	**323**
30. Maryhill, ...	31	23	**955**	**686**	...	550	**628**
31. Possilpark and Barnhill, ...	17	5	**913**	257	...	807	**833**
— Institutions and Harbour, ...	16	8	...	...	...	...	...
CITY, ...	932	562	1,247	744	700	785	939

Note.—Deaths included under Diarrhœa for 1899-1900 are not the same as those previously classified under that heading.

Food Poisoning.

During June, 1900, an outbreak of illness among the staff of a milk purveyor, of which the following is an outline:—

On the morning of 15th June one of the workers was suddenly attacked by sickness, followed by abdominal pain, vomiting, and diarrhœa, and later in the day eight of his fellow employees were similarly affected, the symptoms in each being similar, but varying in severity. All these persons were in the habit of taking their meals together at the premises of their employer, along with four others who remained well. The association here indicated suggested poisoning, and, other probable sources being excluded, enquiry was directed to the various articles of food which had formed the dietary of these persons during the day or two preceding the attacks. On the 13th and 14th it had consisted of eggs, porridge, milk, tea, bread, and veal, which latter was partly eaten recently cooked on the 13th, and cold on the 14th. The number attacked rendered idiosyncrasy to any particular combination of food material unlikely, and it is noteworthy that, on neither of the days, but particularly on the second, was there any suggestion afforded by the sense of smell of change in the veal which might render it hurtful. Nevertheless, the symptoms of poisoning occurred, the earliest beginning after an interval of about 27 hours; and although there is an entire absence of evidence implicating any particular article of diet, the incident remains as an illustration of the subtle changes to which food is liable when the mean temperature of the air reaches the summer average and the rainfall is diminished. These conditions are peculiarly favourable for the development of the causes of diarrhœal affections; and when they are present, the utmost care should be exercised in keeping meat in cool, well-aired places, protected from dust, and in removing from the neighbourhood of dwellings every collection of garbage or decaying vegetable or animal refuse. This is peculiarly necessary when the domestic food supplies are liable to be exposed to the emanations arising from material of this description. Milk, above all things, which forms so largely the food of children, should be kept in an atmosphere absolutely free from taint, if it is to be used with safety. The artificial sterilisation of milk has little value if, after the process, it is kept in open dishes, and exposed to a dust-laden atmosphere.

TUBERCULOUS DISEASES.

Phthisis.

In 1899, 1,383 deaths were registered as due to phthisis, and in 1900, 1,418, representing death-rates respectively of 1·851 and 1·876 per 1,000 living. The age at which the phthisis deaths occurred is shown on pages 24-25.

For several periods the death-rate has been as follows:—

1881-90,	= 2·680	per 1,000 living.
1891-97,	= 2·087	,,
1898,	= 1·811	,,
1899,	= 1·856	,,
1900,	= 1·876	,,

In several towns in Scotland the average rate for the years 1898-1900 has been—

Phthisis Death-rate per 100,000 in certain Scotch Towns for the Three Years 1898-1900.

Glasgow,	**199**	Paisley,	180
Edinburgh,	189	Greenock,	193
Dundee,	200	Perth,	205
Aberdeen,	179		

The deaths and death-rates for the several districts are as follows:—

TABLE XXV.

GLASGOW.—PHTHISIS.

SANITARY DISTRICTS.	DEATHS.		DEATH-RATE PER MILLION.				
	1899.	1900.	1899.	1900.	1881-90.	1891-7.	1898.
— Blythswood, ...	40	44	1,423	1,593	1,800	1,643	1,092
1. Exchange, ...	41	36	1,834	1,601	2,520	1,963	1,662
2. Port-Dundas, ...	9	12	**1,925**	**2,230**	1,940	**2,723**	**2,915**
3. High Street and Closes, W., ...	25	27	**2,530**	**2,690**	3,340	**2,838**	**2,170**
4. St. Rollox, ...	39	28	**2,394**	1,726	2,660	2,039	**2,116**
5. Bellgrove and Dennistoun, ...	118	145	1,564	1,865	2,370	1,892	1,419
6. High Street and Closes, E., ...	22	31	**4,092**	**5,827**	4,290	**2,938**	**4,411**
7. Greenhead and London Road, ...	106	111	1,712	1,770	3,000	**2,195**	1,566
8. Barrowfield, ...	42	68	1,579	**2,512**	3,290	**2,543**	**2,306**
9. Monteith Row, ...	18	12	**4,440**	**3,037**	2,390	**2,285**	1,630
10. St. Andrew's Square, ...	17	11	**4,478**	**2,883**	2,790	**2,675**	1,292
11. Calton, ...	53	53	**2,525**	**2,560**	2,910	**2,695**	**2,624**
12. St. Enoch Square, ...	6	6	**2,019**	**2,585**	3,020	**2,334**	**2,481**
13. Brownfield, ...	7	13	**2,031**	**3,871**	3,340	**2,259**	**2,347**
14. Bridgegate and Wynds, ...	18	14	**3,963**	**3,417**	4,480	**3,864**	**3,885**
15. Woodside, ...	94	100	1,337	1,414	1,930	1,514	1,253
16. Cowcaddens, ...	39	45	**2,368**	**2,659**	3,350	**2,688**	**2,045**
17. Kelvinhaugh and Sandyford,... ...	41	34	1,297	1,096	1,900	1,401	1,062
18. Anderston, ...	56	48	**1,992**	1,732	3,330	**2,577**	**2,355**
19. Kingston, ...	65	70	1,623	1,749	2,380	2,164	**1,885**
20. Laurieston, ...	28	17	**3,233**	**2,024**	2,640	**2,426**	**1,834**
21. Hutcheson Square, ...	125	118	1,819	1,710	2,600	1,960	1,719
22. Gorbals, ...	37	36	**3,004**	**2,966**	2,830	**2,734**	**2,651**
— Springburn and Rockvilla, ...	49	53	1,408	1,476	2,610	1,767	**1,824**
23. Govanhill, ...	31	27	1,384	1,136	...	1,530	1,529
24. Crosshill, ...	5	8	664	987	...	1,171	1,478
25. Langside and Mount Florida, ...	16	10	1,113	646	...	1,166	826
26. Pollokshields, E., and Strathbungo, ...	9	11	660	789	...	814	515
27. Pollokshields, W., and Bellahouston,...	3	4	521	675	...	548	890
28. Hillhead, ...	7	6	812	703	...	750	349
29. Kelvinside, ...	1	5	152	682	...	309	486
30. Maryhill, ...	39	38	1,201	1,133	...	1,303	1,555
31. Possilpark and Barnhill, ...	28	24	1,504	1,234	...	1,453	1,388
— Institutions and Harbour, ...	149	153	...	...	...	...	...
CITY, ...	1,383	1,418	1,851	1,876	2,680	2,087	1,811

Although the infectious character of the disease is now universally accepted, concrete illustrations are by no means numerous, and Dr. M'Kail, of London Road, has supplied me with a striking illustration from his recent practice:—

"Glasgow, 2nd April, 1901.

"Dear Sir,

"I wish to call your attention to a severe illustration of the infectiousness of *phthisis pulmonalis* which has occurred in my practice.

"M. M'K., 10 years, was seen by me last August, when I found her to be suffering from *phthisis pulmonalis*, with diarrhœa. I advised that she should be sent to the country, and that no one should sleep with her. She was sent to Lanark for a month, and came home improved, but soon failed again, and she died on 29th December, 1900. Owing to want of room, her sister, J. M'K., 8 years, slept with her, and in February last she was brought to me, when I diagnosed tubercular consolidation in her lungs. The disease has advanced rapidly, and she is now very ill indeed. [Has since died.] Her brother W., 5 years, has been allowed to sleep in same crib as herself, and he has been failing for a month. I examined him last night, and find marked dulness in one apex and upper lobe of lung, pointing (with wasting) to tubercular consolidation.

The above is an extreme case, but it certainly, to my mind, suggests the need of notification of phthisis, so that some weight of authority might be brought to bear on the relatives to amend, as far as possible, their habits and mode of life to prevent their own infection.

"I am,

"Yours sincerely,

(Signed) "DAVID M'KAIL."

Disinfection in Pulmonary Phthisis—Notification of Certain Cases.

With a view to extending the use of the facilities for disinfection which the Health Committee have placed at the disposal of persons suffering from pulmonary phthisis, I addressed a circular letter early in 1900 to the Superintendents of the general hospitals and dispensaries within the City, as well as to the Poor Law Authorities of the Parishes of Glasgow and Govan, inviting their co-operation with the Sanitary Department to the extent of informing us of patients so affected, and who, being without private medical attendance, were unlikely to become aware, or to avail themselves, of the measures which the Health Committee were prepared to take for the purpose of preventing the extension of the disease to others.

This suggestion met with a most gratifying response, each of the authorities approached agreeing to communicate the information desired, so that the Department is now in a position to extend its aid to the majority of those households where the presence of active tuberculous disease of the lungs constitutes a definite form of public risk. The following is the circular above referred to:—

"Sanitary Chambers,
"Glasgow, March, 1900.

"Dear Sir,

"PULMONARY PHTHISIS.

"As you are no doubt aware, the Health Committee has for the past three or four years undertaken the disinfection of clothing and apartments after death from pulmonary tuberculosis, and also during the currency of the disease, whenever requested by the medical attendant, the number of cases in which disinfection is sought in the latter circumstances, being as a rule, wholly accidental, and dependent on the physical surroundings of the individual patient. It is obvious, however, that there will frequently arise similar conditions during the illness of many patients who are not under the charge of a private medical attendant, and who are thereby unable to obtain advantage of the facilities which the Health Committee are prepared to place at their disposal for the purposes already mentioned. These patients will chiefly occur among

those who seek advice and treatment at the various hospitals of the City; and the purpose of this circular is to invite the aid of the general hospitals and dispensaries in bringing such to our knowledge.

"I venture, therefore, to ask whether any system of interchange of information can be adopted by which we should obtain from you, say, every week, a list of the patients thus suffering who attend for the first time the hospital or dispensary under your charge.

As a subsidiary question, but one of some importance also, the Health Committee would, I believe, be prepared to supply a leaflet, with short instructions for combating infection, which might be printed so that the first page thereof could be used for such prescription as the physician in attendance at your dispensary might deem necessary for the individual case.

"Yours truly,

(Signed) "A. K. CHALMERS."

Under this scheme 118 cases of pulmonary phthisis attending dispensaries for the first time, and 264 cases applying for parish relief, were notified to me during the closing months of 1900.

It has been impossible hitherto, however, to utilise the information thus obtained beyond carrying out disinfection where necessary. The opportunities which it places at our disposal for obtaining a more accurate knowledge, especially of the conditions of the employment of persons developing the disease, should have a practical value.

OTHER FORMS OF TUBERCULOUS DISEASE.

The following Table contains the deaths and death-rates of the several forms of tuberculous disease, other than phthisis, taken from the Registrar-General's classification:—

TABLE XXVI.

GLASGOW.—TUBERCULOUS DISEASES.—DEATHS AND DEATH-RATES PER MILLION FOR THE SEVEN YEARS 1894-1900.

YEAR.	DEATHS.						DEATH-RATE PER MILLION.					
	Tabes Mesenterica.	Tubercular Meningitis.	Other Forms of Tuberculosis (Scrofula).	Tuberculous Diseases (Not Phthisis).	Phthisis.	All Tuberculous Diseases.	Tabes Mesenterica.	Tubercular Meningitis.	Other Forms of Tuberculosis (Scrofula).	Other Tuberculous Diseases (Not Phthisis).	Phthisis.	All Tuberculous Diseases.
1894	186	229	168	583	1,560	2,143	270	332	245	847	2,271	3,119
1895	232	229	166	627	1,584	2,211	333	329	239	901	2,276	3,177
1896	185	246	142	573	1,342	1,915	262	349	202	813	1,903	2,716
1897	191	260	143	594	1,419	2,013	267	364	200	831	1,985	2,816
1898	196	254	139	589	1,404	1,993	270	351	192	813	1,938	2,751
1899	252	235	149	636	1,444	2,080	343	320	203	866	1,968	2,834
1900	242	247	139	628	1,472	2,100	325	332	187	844	1,979	2,823

DISTRICT DISTRIBUTION.

The deaths and death-rates in 1899 and 1900 for the several sanitary districts are given in the following Table:—

TABLE XXVII.

GLASGOW.—TUBERCULAR DISEASES OTHER THAN PHTHISIS.

SANITARY DISTRICTS.	DEATHS.[1]		DEATH-RATE PER MILLION.	
	1899.	1900.	1899.	1900.
— Blythswood, ...	21	19	747	688
1. Exchange, ...	31	24	1,387	1,067
2. Port-Dundas, ...	14	7	2,994	1,301
3. High Street and Closes, W., ...	17	14	1,720	1,395
4. St. Rollox, ...	19	29	1,166	1,788
5. Bellgrove and Dennistoun, ...	84	91	1,113	1,170
6. High Street and Closes, E., ...	11	6	2,046	1,128
7. Greenhead and London Road, ...	84	102	1,356	1,627
8. Barrowfield, ...	35	48	1,316	1,773
9. Monteith Row, ...	5	3	1,233	759
10. St. Andrew's Square, ...	5	6	1,317	1,573
11. Calton, ...	38	28	1,811	1,352
12. St. Enoch Square, ...	7	3	2,356	1,292
13. Brownfield, ...	7	6	2,031	1,787
14. Bridgegate and Wynds, ...	3	8	661	1,952
15. Woodside, ...	77	62	1,096	877
16. Cowcaddens, ...	25	34	1,518	2,009
17. Kelvinhaugh and Sandyford, ...	39	22	1,234	709
18. Anderston, ...	42	41	1,494	1,480
19. Kingston, ...	58	40	1,448	999
20. Laurieston, ...	9	20	1,039	2,381
21. Hutcheson Square, ...	88	93	1,281	1,347
22. Gorbals, ...	23	20	1,867	1,648
— Springburn and Rockvilla, ...	44	44	1,264	1,226
23. Govanhill, ...	20	29	893	1,220
24. Crosshill, ...	4	3	531	370
25. Langside and Mount Florida, ...	9	9	626	582
26 Pollokshields, E., and Strathbungo, ...	5	6	367	431
27. Pollokshields, W., and Bellahouston, ...	5	...	868	...
28. Hillhead, ...	4	5	464	586
29. Kelvinside, ...	4	3	608	409
30. Maryhill, ...	34	27	1,047	805
31. Possilpark and Barnhill, ...	34	28	1,826	1,439
— Institutions and Harbour, ...	22	32	...	...
CITY, ...	927	912	1,241	1,207

[1] All deaths under 5 years certified "Meningitis" are here included among the Tubercular Diseases not Phthisis.

DISEASES OF ORGANS OF RESPIRATION.

The deaths now included in this class differ somewhat from the former classification of acute diseases of the lungs chiefly by inclusion of croup as a presumably simple inflammatory affection of the larynx, but a considerable proportion of which, as we have seen, must be regarded as diphtheria.

On this rearrangement the death-rate per 1,000 living for several periods has been—

1881-90, ... = 5·870.
1891-97, ... = 5·514.
1898-1900, ... = 4·617.

The reduction in the last period is partly to be explained by the greater scrutiny of the "croup" class, resulting in the transference of portion of it to diphtheria.

The deaths and death-rates in each of the sanitary districts for several periods are given in the Table which follows:—

TABLE XXVIII.

GLASGOW.—RESPIRATORY DISEASES.

SANITARY DISTRICTS.	DEATHS.		DEATH-RATE PER MILLION.				
	1899.	1900.	1899.	1900.	1881-90.	1891-7.	1898.
— Blythswood, ...	95	95	3,381	3,438	3,410	3,444	2,711
1. Exchange, ...	94	97	4,206	4,314	4,240	4,062	3,555
2. Port-Dundas, ...	38	48	8,128	8,922	7,420	6,573	7,401
3. High Street and Closes, W., ...	77	66	7,790	6,575	7,200	7,163	5,426
4. St. Rollox, ...	74	74	4,543	4,561	5,230	4,764	3,022
5. Bellgrove and Dennistoun, ...	305	325	4,043	4,179	4,940	4,465	4,091
6. High Street and Closes, E., ...	26	32	4,837	6,015	9,210	9,164	5,330
7. Greenhead and London Road, ...	285	330	4,602	5,263	5,530	5,278	4,614
8. Barrowfield, ...	175	188	6,580	6,946	7,050	6,694	6,003
9. Monteith Row, ...	23	21	5,673	5,314	4,430	5,126	4,192
10. St. Andrew's Square, ...	18	18	4,741	4,717	6,770	6,992	6,201
11. Calton, ...	170	157	8,100	7,583	8,500	7,810	5,389
12. St. Enoch Square, ...	18	11	6,059	4,739	5,010	6,597	8,505
13. Brownfield, ...	25	41	7,255	12,210	8,120	8,030	7,336
14. Bridgegate and Wynds, ...	32	27	7,045	6,589	12,630	10,493	8,996
15. Woodside, ...	295	285	4,197	4,029	4,370	4,261	3,585
16. Cowcaddens, ...	157	152	9,533	8,981	8,710	8,912	9,623
17. Kelvinhaugh and Sandyford, ...	86	94	2,721	3,029	2,940	3,086	2,027
18. Anderston, ...	157	188	5,585	6,784	7,710	6,982	6,363
19. Kingston, ...	185	205	4,620	5,122	4,730	4,660	3,618
20. Laurieston, ...	51	64	5,889	7,618	7,450	7,148	5,845
21. Hutcheson Square, ...	329	366	4,788	5,302	6,050	5,520	4,493
22. Gorbals, ...	103	95	8,363	7,826	8,570	8,622	6,274
— Springburn and Rockvilla, ...	147	159	4,222	4,429	5,530	4,818	3,921
23. Govanhill, ...	49	82	2,188	3,450	...	3,106	2,723
24. Crosshill, ...	15	17	1,993	2,098	...	3,003	1,182
25. Langside and Mount Florida, ...	24	26	1,670	1,680	...	1,765	1,427
26. Pollokshields, E., and Strathbungo, ...	22	18	1,613	1,292	...	1,497	1,178
27. Pollokshields, W., and Bellahouston,	5	15	868	2,531	...	1,253	1,067
28. Hillhead, ...	12	16	1,392	1,873	...	1,302	696
29. Kelvinside, ...	6	9	912	1,228	...	1,179	1,456
30. Maryhill, ...	102	141	3,141	4,205	...	3,554	3,506
31. Possilpark and Barnhill, ...	72	84	3,867	4,318	...	3,964	3,609
— Institutions and Harbour, ...	186	217	...	...	...	...	...
CITY, ...	3,458	3,763	4,628	4,979	5,870	5,154	4,245

TABLE XXIX.—PUERPERAL FEVER.—ERYSIPELAS.

In the following Table the cases of puerperal fever notified in each year since the Notification Act came into operation, together with the case-rate per 1,000 births, and the death-rate from this cause and from erysipelas, are given:—

Year.	Puerperal Fever.			Erysipelas.
	Cases Notified.	Case-rate per 1,000 Births.	Death-rate per Million Living.	Death-rate per Million Living.
1891	80	4·0	105	115
1892	63	2·8	64	84
1893	73	3·1	68	75
1894	64	2·8	51	83
1895	74	3·2	63	69
1896	105	4·4	79	55
1897	62	2·6	48	49
1898	71	2·9	52	40
1899	83	3·4	82	45
1900	78	3·2	78	32

The case-rates and death-rates above are based on data obtained from the Registrar-General's Reports.

Uncertified Deaths and Deaths without Medical Attendance.

In the following Tables the total deaths occurring each year in Glasgow since 1891, the proportion uncertified and dying without medical attendance at *all ages* and *under* and *over five* years, with a comparison of the proportion of deaths of legitimate and illegitimate children under one year and from one to five years, are given. The details for the several sanitary districts of the City for 1899 and 1900 are contained in Tables VII. and VIIA. of the Appendix.

During the last decade of the century the percentage of total deaths uncertified gradually fell from 4·1 in 1891 to 2·7 in 1900, and the proportion of deaths occurring without medical attendance fell from 2·3 to 1·7. It is in the early years of life that death is most likely to occur either without certification or medical attendance, and while the percentage of deaths uncertified under 5 years of age was 6·8 in 1891 and is now 4·3, the percentage over 5 years was only 2·4 in 1891, and 1·8 in 1900. Similarly the deaths without medical attendance under 5 years of age fell from 3·7 per cent. in 1891 to 2·6 per cent. in 1900, while those over 5 years fell from 1·4 per cent. in 1891 to ·9 per cent in 1900.

The diminishing proportion of these deaths may be taken as significant testimony to the ample facilities provided in Glasgow for obtaining medical advice even by the very poorest of the population. But although among children under 5 years there is a reduction of 1·1 per cent. in the number who died without medical attendance at all, it is to be observed that 163 deaths of this class occurred during 1900. Of legitimate children dying in their first year, 5·3 per cent. were uncertified during 1899, against 12·5 per cent. of the deaths occurring during the same age-period among children of illegitimate birth.

TABLE XXX.

GLASGOW.—CERTIFICATION OF DEATHS, 1891 TO 1900.

	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Total Deaths, ...	14,149	14,855	15,436	13,301	15,997	13,994	15,306	14,872	15,350	15,924
Of these Uncertified, ...	577	593	565	477	519	433	453	429	432	438
Died without Medical Attendance, ...	323	307	269	248	274	217	257	230	268	245
Deaths under 5 years, ...	5,432	6,276	6,932	5,313	6,437	6,129	6,702	6,483	6,159	6,217
Of these Uncertified, ...	368	360	367	309	304	262	272	244	271	270
Died without Medical Attendance, ...	202	198	188	176	162	143	174	149	183	163
Deaths above 5 years,...	8,717	8,579	8,504	7,988	9,560	7,865	8,604	8,389	9,191	9,269
Of these Uncertified, ...	209	233	198	168	215	171	181	185	161	168
Died without Medical Attendance, ...	121	109	81	72	112	74	83	81	85	82
Percentage of Total Deaths Uncertified, ...	4·1	4·0	3·7	3·6	3·2	3·1	3·0	2·9	2·8	2·7
Percentage of Total Deaths which occurred without Medical Attendance, ...	2·3	2·1	1·7	1·9	1·7	1·6	1·7	1·5	1·7	1·7
Percentage of Deaths under 5 years Uncertified,	6·8	5·7	5·3	5·8	4·7	4·3	4·6	3·8	4·4	4·3
Percentage of Deaths under 5 years which occurred without Medical Attendance,	3·7	3·2	2·7	3·3	2·5	2·3	2·6	2·3	3·0	2·6
Percentage of Deaths above 5 years Uncertified,	2·4	2·7	2·3	2·1	2·2	2·2	2·1	2·2	1·7	1·8
Percentage of Deaths above 5 years which occurred without Medical Attendance,	1·4	1·3	1·0	0·9	1·2	0·9	1·0	1·0	0·9	0·9

TABLE XXXI.

GLASGOW.—COMPARATIVE CERTIFICATION OF LEGITIMATE AND ILLEGITIMATE CHILDREN.

	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Legitimate Deaths under 1 year, ...	2,581	2,749	3,196	2,568	3,101	2,862	3,358	3,342	3,246	3,301
Of these Uncertified, ...	217	202	207	202	176	155	177	166	172	189
Legitimate Deaths, 1—5 years, ...	2,287	2,901	3,091	2,243	2,705	2,693	2,697	2,528	2,330	2,591
Of these Uncertified, ...	71	70	67	42	54	38	27	32	30	45
Illegitimate Deaths under 1 year, ...	378	406	452	356	424	416	448	450	440	432
Of these Uncertified, ...	58	70	69	49	59	56	55	38	55	42
Illegitimate Deaths, 1—5 years, ...	186	220	193	146	207	158	199	163	143	163
Of these Uncertified, ...	22	18	24	16	15	13	13	8	14	4
Percentage Legitimate Deaths under 1 year Uncertified, ...	8·4	7·3	6·5	7·9	5·7	5·4	5·3	4·9	5·3	5·7
Percentage Legitimate Deaths, 1—5 years, Uncertified, ...	3·1	2·4	2·2	1·9	2·0	1·4	1·0	1·3	1·3	1·8
Percentage Illegitimate Deaths under 1 year Uncertified, ...	15·3	17·2	15·3	13·8	13·9	13·5	12·3	8·4	12·5	9·7
Percentage Illegitimate Deaths, 1—5 years, Uncertified, ...	11·8	8·2	12·4	11·0	7·2	8·2	6·5	4·9	9·8	2·5

TABLE XXXII.

GLASGOW.—INSURANCE OF LIVES IN FRIENDLY SOCIETIES, WITH COMPARISON OF INSURANCE OF LEGITIMATE AND ILLEGITIMATE CHILDREN FOR THE YEARS 1891 TO 1900.

	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Total Deaths, ...	14,149	14,855	15,436	13,301	15,997	13,994	15,306	14,872	15,350	15,924
Of these Insured, ...	8,274	8,390	8,811	7,697	9,433	8,453	9,196	8,866	9,110	9,594
Deaths under 5 years, ...	5,432	6,276	6,932	5,313	6,437	6,129	6,702	6,483	6,159	6,487
Of these Insured, ...	2,818	3,325	3,759	2,752	3,539	3,381	3,723	3,418	3,199	3,419
Deaths above 5 years, ...	8,717	8,579	8,504	7,988	9,560	7,865	8,604	8,389	9,191	9,437
Of these Insured, ...	5,456	5,065	5,052	4,945	5,894	5,072	5,473	5,448	5,911	6,175
Legitimate Deaths under 1 year, ...	2,581	2,749	3,196	2,568	3,101	2,862	3,358	3,342	3,246	3,301
Of these Insured, ...	1,051	1,140	1,415	1,045	1,391	1,259	1,548	1,436	1,375	1,392
Illegitimate Deaths under 1 year.	378	406	452	356	424	416	448	450	440	432
Of these Insured, ...	52	42	44	36	37	37	45	50	43	48
Legitimate Deaths, 1—5 years, ...	2,287	2,901	3,091	2,243	2,705	2,693	2,697	2,528	2,330	2,591
Of these Insured, ...	1,656	2,066	2,234	1,627	2,023	2,025	2,065	1,880	1,726	1,930
Illegitimate Deaths, 1—5 years, ...	186	220	193	146	207	158	199	163	143	163
Of these Insured, ...	59	77	66	44	88	60	65	52	55	49
Percentage of Total Deaths Insured, ...	58·5	56·5	57·1	57·9	59·0	60·4	60·1	59·6	59·3	60·2
Do. Deaths under 5 years Insured,	51·9	53·0	54·2	51·8	55·0	55·2	55·6	52·7	51·9	52·7
Do. Deaths above 5 years do.,	62·6	59·1	59·4	61·9	61·7	64·5	63·6	64·9	64·3	65·4
Do. Legitimate Deaths under 1 year Insured, ...	40·7	41·5	44·3	40·7	44·8	44·9	46·1	43·0	42·4	42·2
Do. Illegitimate Deaths under 1 year Insured, ...	13·8	10·3	9·8	10·1	8·7	8·9	10·0	11·1	9·8	11·1
Do. Legitimate Deaths, 1—5 years, Insured, ...	72·4	71·2	72·3	72·5	74·8	75·2	76·6	74·4	74·1	74·5
Do. Illegitimate Deaths, 1—5 years, Insured, ...	31·7	35·0	34·2	30·1	43·4	38·0	32·7	31·9	38·5	30·1

Corresponding details for the several Sanitary Districts in 1899-1900 are contained in Tables VIII. and VIIIA. of the Appendix.

TABLE XXXIII.

ABSTRACT OF METEOROLOGICAL OBSERVATIONS TAKEN AT GLASGOW OBSERVATORY.

Months.	Temperature.				Rain.		
	Highest Temperature in Shade.	Lowest Temperature in Shade.	Mean Temperature for Month.	Departure from average of 31 Years.	No. of Days it fell.	Amount Collected.	Departure, 31 Years.
1899.							
January, ...	50·2°	21·1°	37·5°	− 0·9	22	6·44	+ 2·93
February, ...	50·4°	24·0°	39·1°	− 0·1	16	2·25	− 0·83
March, ...	58·2°	23·8°	40·4°	+ 0·2	18	3·31	+ 0·84
April, ...	60·1°	30·0°	43·7°	− 1·0	20	3·78	+ 1·85
May, ...	67·8°	34·0°	47·2°	− 2·2	15	4·87	+ 2·46
June, ...	77·6°	44·7°	58·1°	+ 3·1	12	1·83	− 0·95
July, ...	75·3°	49·0°	58·9°	+ 1·5	16	3·97	+ 0·87
August, ...	80·1°	45·5°	60·4°	+ 3·7	11	1·12	− 2·79
September, ...	67·9°	36·0°	52·1°	− 0·8	24	3·92	+ 0·28
October, ...	61·8°	32·6°	48·1°	+ 1·4	19	3·09	− 0·59
November, ...	58·4°	31·8°	47·6°	+ 5·8	19	5·13	+ 1·43
December, ...	53·2°	18·2°	35·9°	− 2·7	19	3·49	− 0·48
1900.				Departure from average of 32 Years.			Departure, 32 Years.
January, ...	51·1°	30·2°	39·6°	+ 1·2	25	4·56	+ 0·88
February, ...	50·0°	14·8°	34·0°	− 5·2	14	2·86	− 0·20
March, ...	52·7°	26·2°	37·8°	− 2·4	8	0·43	− 2·06
April, ...	66·9°	32·7°	45·6°	+ 0·9	18	2·04	+ 0·06
May, ...	69·5°	35·7°	49·9°	+ 0·5	17	2·16	− 0·32
June, ...	74·0°	43·9°	56·3°	+ 1·1	17	4·34	+ 1·59
July, ...	73·9°	46·3°	58·7°	+ 1·2	23	3·54	+ 0·41
August, ...	77·7°	45·8°	56·0°	− 0·8	17	4·91	+ 1·08
September, ...	68·2°	39·2°	53·5°	+ 0·6	17	3·38	− 0·30
October, ...	60·1°	31·3°	46·3°	− 0·4	20	5·44	+ 1·78
November, ...	57·8°	27·0°	43·2°	+ 1·2	21	5·86	+ 2·11
December, ...	55·0°	34·3°	44·2°	+ 5·7	29	7·34	+ 3·38

PLAGUE.

In August, 1899, the Local Government Board directed the attention of Local Authorities to the existence of plague at Oporto, and to the provisions for dealing with ships coming from infected ports contained in their regulations under the Cholera Order of 1898. These regulations contained, *inter alia*, provision for the medical inspection of infected ships and for the delimitation of a mooring area within which an infected ship might be detained until the Medical Officer of Health was satisfied that no infectious disease existed on board, or, if such were the case, that it had been dealt with to his satisfaction.

In order to give effect to the latter of these provisions, the anchorage formerly defined for cholera purposes was, with the approval of the Chief Officer of Customs, again fixed for plague.

This area is described as "That portion of the harbour of Glasgow bounded on the east by a line drawn from the east side of the Foreign Animals Wharf, Yorkhill, on the north side of the River Clyde, to the eastern boundary of the shipbuilding yard of Messrs. Napier & Company on the south side of the said river, and extending westwards to the western boundary of said harbour of Glasgow, and within said bounds vessels so detained by the Officer of Customs shall be moored to buoys in mid-stream, not alongside the wharf or in proximity to any other vessel."

With regard to the former provision, the regulations prescribe that any Officer of Customs who has reason to suspect that any ship is infected, shall detain such ship until it has been examined by the Medical Officer of Health. As this examination must take place within twelve hours of detention, I suggested to the Chief Officer of Customs that, in addition to the formal notice sent by him to the Local Authority in terms of Article 4, he should cause a verbal intimation to be sent to the nearest police office, whence, by arrangement with Captain Boyd, it might be telephoned to me. This arrangement worked satisfactorily.

Consequent on the occurrence of the disease in Oporto, all ships coming from Spanish or Portuguese ports were visited, and the presence of disease inquired into.

Attention was also directed to the disease as affecting rats, and several dead rats found on board ship were retained for bacteriological examination, but in all cases with a negative result.

The address of any of the crew resident in Glasgow was noted, and unless they returned by the ship they were visited in their own homes.

The Order also provided for obtaining the names and addresses of any passenger arriving on board infected ships, and a similar Order, becoming operative in England, brought many intimations of passengers entering this country through some other port but having their homes in Glasgow. From a careful examination of these lines of communication we were able to exclude definitely the occurrence of any illness which, even in the remotest degree, suggested plague, and none of the persons of whom we have this information resided near the area in which plague appeared during the autumn of 1900.

This outbreak is made the subject of a special report.

DAIRIES, COWSHEDS, AND MILKSHOPS ORDER, 1899.

Tuberculosis.

An important practical step in dealing with tuberculosis was taken by the Local Government Board in the Dairies, Cowsheds, and Milkshops Order, 1899. This amended Order now includes tuberculous disease of the udder among the diseases referred to in Article 15 of the original Order, in which the milk of any animal so suffering was declared unfit to be mixed with other milk or to be used for human food, or for the food of swine or animals unless previously boiled.

It is true that the Order in this case is limited in its application to animals suffering from a recognisable affection of the udder. We know, however, that

before the disease may be clinically recognisable there the milk may be infectious if the animal suffers acutely from disease elsewhere, and although the importance of this may readily be overweighted, its occurrence should be remembered.

19 Cows were excluded, on veterinary inspection, from the byres in the City in 1899 and 9 in 1900, owing to tuberculosis in one form or another.

BACTERIOLOGICAL DEPARTMENT.

The Bacteriological Laboratories attached to the Department were opened in 1899 on Dr. Buchanan's appointment as Bacteriologist. Shortly thereafter an effort was made to discover the presence of the tubercle bacillus in country milk as delivered in town, but the absence of any facilities for applying a biological test rendered this at first abortive. During 1900 these additional facilities were obtained, and now (1901) the inquiry has again been begun.

The facilities afforded by the Laboratory for the examination of specimens relating to diphtheria, enteric fever, and pulmonary tuberculosis have been largely taken advantage of by the medical practitioners of the city, as will be seen from the following table:—

Specimens submitted by Medical Practitioners for Bacteriological Diagnosis.

	Positive.	Negative.	Total.
Diphtheria, ...	100	253	353
Enteric Fever, ...	281	261	543
Tuberculosis, ...	153	198	351
	534	713	1,247

UNINHABITABLE HOUSES.

By the operation of the 32nd Clause of the Glasgow Police (Amendment) Act, 1890, forty-six houses were closed during the year 1899, and forty-five during the year 1900. These were situated in the following districts, viz.:—Bellgrove and Dennistoun, High Street and Closes East, Greenhead and London Road, Barrowfield, Calton, Cowcaddens, Kingston, Laurieston, and Hutchesontown. Fifty-four were houses of one apartment, and thirty-four houses of two apartments. Two of the one-apartment houses and one of the two-apartment houses were unoccupied at the time of closure. The number of persons displaced was 268, of whom 11 were lodgers. Sixteen of the houses were farmed out, at an average rental of five shillings per week, 14 of them being in the Calton district.

The total number closed under this clause is as follows:—

	One Apartment.	Two Apartments.	Three Apartments.	Four Apartments.	House and Shop.	Total.
Houses closed to 31st December, 1898,	425	167	9	2	3	606
Houses closed in 1899,...	27	19	—	—	—	46
Houses closed in 1900,...	27	15	—	—	3	45
Houses closed to end of 1900,... ...	479	201	9	2	6	697

UNDERGROUND HOUSES.

During 1899 twelve underground houses were closed in Districts 3 and 4, ten of which were houses of one apartment and two of two apartments.

OFFENSIVE TRADES.

PUBLIC HEALTH (SCOTLAND) ACT, 1897, SECTION 32.

In 1899 the Local Authority sanctioned the establishment of the following businesses :—

1899.—1 Soap Boiler.
1 Gut Scraper.
1 Tanner.
2 Tallow Melters.

And in 1900 that of 1 Tallow Melter.

BAKEHOUSES.

During 1900 the following orders for whitewashing were issued :—

In Central District, 17; Southern, 6; Western, 2; Eastern, 1; Northern, 6; South Suburban, 1; North-Western, 1.

UNDERGROUND BAKEHOUSES.

In October, 1899, on a report to the Medical Officer by H.M. Inspector of Factories, a complaint was instituted under the Factory and Workshops Acts against the Glasgow United Young Men's Christian Association, in respect of a contravention of those Acts by that association using an underground bakehouse at their premises in Bothwell Street, which had not been in use prior to 1st January, 1896.

In defending the action the respondents pled—(1) that the "place" which was used as a bakehouse was not "underground" within the meaning of the Act, and (2) that it was not a "retail bakehouse."

The first contention was based on the fact that the place referred to in the complaint was part of a larger building which faced Bothwell Street, and that, as the flat of that building in which it was situated was certainly not underground, the bakehouse itself did not come within the meaning of that term. The Sheriff, however, decided that the part of the building complained of, and not the whole building, must be considered in dealing with this question, and that in this particular instance the street nearest to the bakehouse, viz. Mains Street, with respect to which it certainly was underground, must be the criterion.

It was urged in support of the second contention that the bakehouse was used solely for the purpose of tea-bread, &c., for use at the restaurant tables, to which it was an adjunct, and that consequently it could not be regarded as a retail bakehouse. This plea was also rejected by the Sheriff.

RABIES.

239 dogs were reported by the police during 1899, and 196 during 1900, as having bitten persons.

Inquiry was made in each case with the view of ascertaining whether any evidence existed that the animals suffered from rabies, but in all the result was negative.

RETURN OF PERSONS ADMITTED TO CITY RECEPTION HOUSES.

The rapid increase in the number of cases of smallpox during the month of June, 1900, speedily taxed the accommodation for contacts in the Reception Houses in Weaver Street and South York Street, and, by arrangement with the School Board, occupancy was obtained of a self-contained dwelling in Montrose Street early in July. Later, in the autumn of the same year, when plague appeared, the Parks Committee rendered material assistance to the Health Committee by generously placing at their disposal Tollcross House, which was used for receiving many persons who had been inmates or visitors in plague-infected houses

The total number accommodated in these houses in connection with typhus fever, smallpox, and plague during 1899 and 1900 is as follows:—

	1899.		1900.
Typhus, ...	84	...	195
Smallpox, ...	4	...	1,258
Plague, ...	0	...	179
Others, ...	0	...	5
	88	...	1,637

The numbers admitted to each of the Reception Houses in 1899 and 1900 was as follows:—

	Weaver St.	So. York St.	Montrose St.	Tollcross.	Total.
1899, ...	69 ...	19 ...	— ...	— ...	88
1900, ...	482 ...	926 ...	172 ...	57 ...	1,637

A. K. CHALMERS, M.D.,
Medical Officer of Health.

Sanitary Chambers,
Glasgow, *17th June, 1901.*

APPENDIX.

TABLE I.—Glasgow.—Population; Births and Deaths; Birth-rates and Death-rates per 1,000, also Deaths under 1 Year and Death-rates under 1 Year per 1,000 Born, from 1855 to 1900.

Year.	Population.	Births.	Deaths.	Birth-rate per 1,000.	Death-rate per 1,000.	Deaths under 1 Year.	
						Number.	Rate per 1,000 born.
1855	356,355	13,242	10,655	37·2	29·9	2,600	196
1856	362,606	15,170	10,298	41·8	28·4	2,713	179
1857	369,318	15,706	11,375	42·5	30·8	2,851	182
1858	376,131	15,889	11,472	42·2	30·5	2,846	179
1859	382,756	15,947	10,832	41·6	28·3	2,448	154
1860	389,843	15,943	12,436	40·8	31·9	2,905	182
1861	397,673	16,537	10,936	41·6	27·5	2,544	154
1862	405,789	16,400	11,565	40·4	28·5	2,562	156
1863	413,944	16,986	13,329	41·0	32·2	2,774	163
1864	420,738	17,411	13,674	41·4	32·5	3,051	175
1865	428,123	17,956	13,914	41·9	32·5	3,097	173
1866	437,850	18,288	12,829	41·8	29·3	2,905	159
1867	446,028	18,347	12,578	41·1	28·2	2,895	158
1868	455,000	18,607	13,832	40·9	30·4	3,127	168
1869	464,332	18,495	15,648	39·8	33·7	3,411	184
1870	471,453	19,355	13,955	41·1	29·6	2,991	155
1871	491,900	18,867	15,790	38·4	32·1	3,608	191
1872	494,824	20,158	14,053	40·7	28·4	3,198	159
1873	494,847	19,487	14,499	39·4	29·3	3,255	167
1874	498,270	20,039	15,845	40·2	31·8	3,240	162
1875	499,480	20,825	15,384	41·7	30·8	3,388	163
1876	502,299	20,981	13,763	41·7	27·4	3,166	151
1877	504,487	21,124	13,823	41·9	27·4	3,106	147
1878	507,420	20,622	14,157	40·6	27·9	3,285	159
1879	508,048	19,751	12,498	38·8	24·6	2,504	127
1880	509,732	18,912	13,304	37·1	26·1	2,842	150
1881	512,034	19,106	12,916	37·3	25·2	2,745	144
1882	517,904	19,735	13,046	38·1	25·2	2,959	150
1883	523,154	19,911	14,577	38·1	27·9	3,091	155
1884	528,459	20,557	13,942	38·9	26·4	3,094	151
1885	533,817	19,861	13,492	37·2	25·3	3,100	156
1886	539,231	19,862	13,104	36·8	24·3	2,786	140
1887	544,700	19,328	12,135	35·5	22·3	2,676	138
1888	550,226	19,309	11,681	35·1	21·2	2,560	133
1889	555,808	19,503	13,139	35·1	23·6	3,008	154
1890	561,447	19,279	13,374	34·3	23·8	2,880	149
1891	567,143	19,857	14,324	35·0	25·3	2,946	148
1892	669,059[1]	22,815	15,218	34·1	22·7	3,168	139
1893	677,883	23,173	15,798	34·2	23·3	3,649	157
1894	686,820	22,644	13,673	34·0	19·9	2,937	130
1895	695,876	22,803	16,344	32·8	23·5	3,538	155
1896	705,052	24,029	14,385	34·1	20·4	3,278	136
1897	714,919	23,880	15,727	33·4	22·0	3,826	160
1898	724,349	24,262	15,333	33·5	21·2	3,792	156
1899	733,903	24,249	15,828	33·0	21·6	3,696	152
1900	743,969	24,362	16,393	32·7	22·0	3,778	153

[1] Extended City.

The figures in this Table are taken from the Registrar-General's Reports.

TABLE II.—GLASGOW.—ESTIMATED POPULATION, BIRTHS AND DEATHS AT ALL AGES AND AT CERTAIN PERIODS OF LIFE, AND THEIR PROPORTION TO THE POPULATION, ALSO THE ILLEGITIMATE BIRTHS AND THEIR PROPORTION TO THE TOTAL BIRTHS, IN EACH SANITARY DISTRICT FOR THE YEAR 1899.

SANITARY DISTRICTS.	ESTIMATED POPULATION.			BIRTHS.		ILLEGITIMATE BIRTHS.		DEATHS ALL AGES.		DEATHS AT CERTAIN PERIODS OF LIFE.						
	Without Institutions and Shipping.	Institutions and Shipping.	Total	Number.	Rate per 1,000 Living	Number.	Percentage of Total Births.	Number.	Rate per 1,000 Living.	Under 1 Year.	1—5 Years.	5—15 Years.	15—20 Years.	20—25 Years.	25—60 Years.	60 Years and above.
— Blythswood, ...	28,101	88	28,189	533	19·0	79	14·8	428	15·2	63	50	12	8	14	155	126
1. Exchange, ...	22,351	1,946	24,297	612	27·4	74	12·1	391	17·5	89	53	17	2	11	134	85
2. Port Dundas, ...	4,675	23	4,698	186	39·8	19	10·2	136	29·1	45	26	5	1	1	35	23
3. High Street and Closes, W., ...	9,883	30	9,913	338	34·2	47	13·9	290	29·3	65	42	9	5	6	87	76
4. St. Rollox, ...	16,290	...	16,290	585	35·9	26	4·4	373	22·9	88	80	27	5	15	111	47
5. Bellgrove and Dennistoun, ...	75,450	1,181	76,631	2,581	34·2	115	4·5	1,445	19·2	343	254	86	38	48	423	253
6. High Street and Closes, E., ...	5,376	1,741	7,117	216	40·2	33	15·3	165	30·7	41	23	3	1	8	70	19
7. Greenhead and London Road, ...	61,931	1,336	63,267	2,487	40·2	99	4·0	1,375	22·2	377	268	83	34	36	355	222
8. Barrowfield, ...	26,594	...	26,594	1,057	39·7	87	8·2	693	26·1	174	132	38	7	14	204	124
9. Monteith Row, ...	4,054	...	4,054	96	23·7	10	10·4	109	26·9	18	17	6	2	3	40	23
10. St. Andrew's Square, ...	3,796	598	4,394	100	26·3	13	13·0	93	24·5	22	9	3	3	3	39	14
11. Calton, ...	20,987	1,134	22,121	807	38·4	80	10·0	632	30·1	142	128	37	13	16	192	104
12. St. Enoch Square, ...	2,971	429	3,400	57	19·2	8	14·0	68	22·9	16	8	3	2	7	21	11
13. Brownfield, ...	3,446	299	3,745	134	38·9	24	17·9	91	26·4	23	13	4	3	2	29	17
14. Bridgegate and Wynds, ...	4,542	...	4,542	169	37·2	22	13·0	113	24·9	21	14	4	4	4	50	16
15. Woodside, ...	70,281	326	70,607	2,278	32·4	129	5·7	1,249	17·8	325	189	67	24	37	364	243
16. Cowcaddens, ...	16,469	487	16,956	764	46·4	92	12·0	535	32·5	160	95	28	5	15	161	71
17. Kelvinhaugh and Sandyford, ...	31,606	1,041	32,647	750	23·7	47	6·3	438	13·9	77	66	15	11	14	135	120
18. Anderston, ...	28,110	393	28,503	1,022	36·4	54	5·3	685	24·4	202	130	29	17	20	206	81
19. Kingston, ...	40,048	217	40,265	1,108	27·7	66	6·0	780	19·5	184	114	38	25	25	212	182
20. Laurieston, ...	8,660	351	9,011	319	36·8	27	8·5	216	24·9	58	35	11	7	6	64	35
21. Hutcheson Square, ...	68,707	...	68,707	2,676	38·9	137	5·1	1,381	20·1	396	238	56	36	39	379	237
22. Gorbals, ...	12,316	834	13,150	428	34·8	39	9·1	391	31·7	106	71	17	11	8	117	61
— Springburn and Rockvilla, ...	34,813	...	34,813	1,270	36·5	78	6·1	647	18·6	179	145	41	16	15	171	80
23. Govanhill, ...	22,390	...	22,390	744	33·2	25	3·4	319	14·2	92	38	14	5	8	87	75
24. Crosshill, ...	7,527	...	7,527	145	19·3	7	4·8	75	10·0	13	6	4	2	2	20	28
25. Langside and Mount Florida, ...	14,374	387	14,761	325	22·6	9	2·8	134	9·3	27	7	6	4	8	37	45
26. Pollokshields, E., and Strathbungo,	13,642	...	13,642	208	15·2	3	1·4	124	9·1	16	8	5	7	5	40	43
27. Pollokshields, W., and Bellahouston,	5,763	...	5,763	57	9·9	4	7·0	49	8·5	2	9	2	...	2	17	17
28. Hillhead, ...	8,619	...	8,619	85	9·9	3	3·5	84	9·7	5	2	2	6	1	22	46
29. Kelvinside, ...	6,579	584	7,163	62	9·4	2	3·2	45	6·8	4	2	3	...	1	15	20
30. Maryhill, ...	32,469	1,216	33,685	1,269	39·1	56	4·4	474	14·6	151	86	25	6	20	123	63
31. Possilpark and Barnhill, ...	18,620	1,141	19,761	741	39·8	16	2·2	350	18·8	98	62	27	8	15	92	48
— Institutions and Shipping, ...	...	...	...	52	...	11	21·2	972	...	64	53	23	9	18	428	377
CITY, ...	731,440	15,872	747,222	24,261	32·5	1,541	6·4	15,350	20·5	3,686	2,473	750	327	447	4,635	3,032

TABLE IIa.—Glasgow.—Estimated Population, Births and Deaths at all Ages and at certain Periods of Life, and their Proportion to the Population, also the Illegitimate Births and their Proportion to the Total Births, in each Sanitary District for 1900.

Sanitary Districts.	Estimated Population.			Births.		Illegitimate Births.		Deaths.		Deaths at certain Periods of Life.						
	Without Institutions and Shipping.	Institutions and Shipping.	Total Population.	Number.	Rate per 1,000.	Number.	Per cent. Total Births.	Number.	Rate per 1,000.	Under 1 Year.	1—5 Years.	5—15 Years.	15—20 Years.	20—25 Years.	25—60 Years.	60 Years and above.
— Blythswood, ...	27,630	69	27,699	482	17·4	84	17·4	463	16·8	78	70	20	13	15	155	112
1. Exchange, ...	22,484	1,970	24,454	672	29·9	77	11·5	458	20·4	100	65	21	9	12	152	99
2. Port-Dundas, ...	5,380	23	5,403	207	38·5	19	9·2	166	30·9	43	29	15	4	6	49	20
3. High Street and Closes, W., ...	10,038	83	10,121	362	36·1	52	14·4	302	30·1	66	41	11	5	12	90	77
4. St. Rollox, ...	16,223	...	16,223	568	35·0	29	5·1	327	20·2	81	57	18	10	10	97	54
5. Bellgrove and Dennistoun, ...	77,760	961	78,721	2,672	34·4	122	4·6	1,492	19·2	416	273	95	40	47	392	229
6. High Street and Closes, E., ...	5,320	1,525	6,845	177	33·3	29	16·4	166	31·2	38	21	12	3	4	64	24
7. Greenhead and London Road, ...	62,704	1,287	63,991	2,574	41·0	114	4·4	1,410	22·5	396	317	75	36	37	345	204
8. Barrowfield, ...	27,067	...	27,067	1,077	39·8	74	6·9	709	26·2	200	159	31	11	20	183	105
9. Monteith Row, ...	3,952	...	3,952	101	25·6	7	6·9	86	21·8	16	8	3	6	3	21	29
10. St. Andrew's Square, ...	3,816	625	4,441	128	33·5	17	13·3	86	22·5	20	14	2	1	7	27	15
11. Calton, ...	20,703	1,219	21,922	797	38·5	69	8·7	553	26·7	131	103	26	10	22	179	82
12. St. Enoch Square, ...	2,321	364	2,685	52	22·4	7	13·5	54	23·3	8	5	1	1	3	29	7
13. Brownfield, ...	3,358	293	3,651	133	39·6	20	15·0	142	42·3	40	28	10	3	6	41	14
14. Bridgegate and Wynds, ...	4,098	...	4,098	146	35·6	23	15·8	123	30·0	24	18	7	4	4	43	23
15. Woodside, ...	70,729	303	71,032	2,115	29·9	122	5·8	1,250	17·7	293	199	82	30	43	376	227
16. Cowcaddens, ...	16,925	481	17,406	666	39·4	76	11·4	573	33·9	155	140	25	8	16	164	65
17. Kelvinhaugh and Sandyford, ...	31,029	1,052	32,081	747	24·1	38	5·1	458	14·8	82	54	16	9	11	140	146
18. Anderston, ...	27,712	370	28,082	1,055	38·1	69	6·5	689	24·9	186	163	33	11	20	196	80
19. Kingston, ...	40,025	248	40,273	1,149	28·7	78	6·8	872	21·8	191	165	41	26	31	249	169
20. Laurieston, ...	8,401	331	8,732	291	34·6	22	7·6	246	29·3	60	57	14	4	7	69	35
21. Hutcheson Square, ...	69,024	...	69,024	2,502	36·2	109	4·4	1,468	21·3	365	299	69	35	48	401	251
22. Gorbals, ...	12,139	792	12,931	447	36·8	34	7·6	327	26·9	81	57	14	10	11	110	44
— Springburn and Rockvilla, ...	35,899	...	35,899	1,322	36·8	54	4·1	662	18·4	166	115	40	23	26	190	102
23. Govanhill, ...	23,765	...	23,765	801	33·7	28	3·5	361	15·2	96	54	16	10	18	111	56
24. Crosshill, ...	8,102	...	8,102	142	17·5	8	5·6	89	11·0	15	8	2	1	5	36	22
25. Langside and Mount Florida, ...	15,478	401	15,879	339	21·9	6	1·8	149	9·6	29	7	8	7	5	37	56
26. Pollokshields, E., and Strathbungo,	13,935	...	13,935	218	15·6	6	2·8	149	10·7	16	6	5	3	9	42	68
27. Pollokshields, W., and Bellahouston,	5,926	...	5,926	59	10·0	1	1·7	65	11·0	6	3	5	1	2	17	31
28. Hillhead, ...	8,542	...	8,542	107	12·5	7	6·5	112	13·1	8	5	3	1	3	34	58
29. Kelvinside, ...	7,330	575	7,905	107	14·6	5	4·7	64	8·7	12	1	...	2	2	24	23
30. Maryhill, ...	33,535	810	34,345	1,328	39·6	67	5·0	557	16·6	174	88	37	11	12	154	81
31. Possilpark and Barnhill, ...	19,455	1,143	20,598	745	38·3	27	3·6	336	17·3	90	73	22	15	9	82	45
— Institutions and Shipping, ...	...	...	...	36	...	12	33·3	960	...	51	52	21	8	31	397	400
CITY, ...	740,805	14,925	755,730	24,324	32·2	1,512	6·2	15,924	21·1	3,733	2,754	800	371	517	4,696	3,053

TABLE III.—Glasgow.—Deaths at all ages from different Diseases in each Sanitary District during 1899.

Sanitary Districts.	All Causes.	Smallpox.	Diphtheria and M. Croup.	Scarlet Fever.	Fevers.			Measles.	Whooping-cough.	Diarrhœa.	Septic Diseases.	Tubercular Diseases.		Cancer, Malignant Diseases.	Diseases of Nervous System.	Diseases of Circulatory System.	Croup.	Diseases of Respiratory System.	Violence.	Premature Birth.	All Other Causes.
					Typhus.	Enteric.	Undefined					Phthisis.	Other than Phthisis.								
— Blythswood,	428	...	3	6	...	2	...	6	5	13	3	40	21	25	38	49	1	94	12	8	102
1. Exchange,	391	...	1	1	...	3	...	15	5	18	...	41	31	16	29	26	1	93	14	9	88
2. Port-Dundas,	136	...	1	...	...	...	...	3	2	12	3	9	14	4	7	6	...	38	5	4	28
3. High Street and Closes, W.,	290	...	...	1	...	3	...	16	3	8	3	25	17	8	21	28	2	75	6	15	59
4. St. Rollox,	373	...	2	7	...	9	...	34	19	18	2	39	19	12	18	21	...	74	15	8	76
5. Bellgrove and Dennistoun,	1,445	...	11	22	...	31	...	53	28	96	9	118	84	56	107	109	3	302	43	46	327
6. High Street and Closes, E.,	165	...	2	3	...	1	...	5	2	7	1	22	11	4	19	19	...	26	4	5	34
7. Greenhead and London Road,	1,375	...	8	19	...	24	..	64	35	113	12	106	84	44	111	111	9	276	27	48	284
8. Barrowfield,	693	...	3	4	...	9	...	40	3	58	2	42	35	22	59	54	4	171	21	27	139
9. Monteith Row,	109	...	...	4	...	3	...	2	1	6	...	18	5	1	11	9	2	21	2	1	23
10. St. Andrew's Square,	93	...	1	...	...	1	...	...	..	9	...	17	5	2	7	11	1	17	2	6	14
11. Calton,	632	...	1	4	1	11	...	36	13	37	5	53	38	20	55	42	2	168	15	16	115
12. St. Enoch Square,	68	...	...	...	...	...	..	1	2	4	3	6	7	3	5	3	1	17	4	2	10
13. Brownfield,	91	...	1	...	1	1	...	2	...	3	...	7	7	2	11	9	...	25	4	...	18
14. Bridgegate and Wynds,	113	...	2	...	...	1	...	3	1	3	...	18	3	1	14	6	...	32	3	2	24
15. Woodside,	1,249	...	9	27	...	8	1	34	29	69	9	94	77	45	114	103	4	291	39	42	254
16. Cowcaddens,	535	...	3	9	...	3	...	10	9	32	1	39	25	11	44	33	...	157	11	14	134
17. Kelvinhaugh and Sandyford,	438	...	8	5	1	2	...	8	10	11	4	41	39	27	45	31	1	85	15	11	94
18. Anderston,	685	...	5	...	...	5	...	35	25	53	6	56	42	20	61	53	2	155	26	25	116
19. Kingston,	780	...	3	8	...	9	...	23	15	42	8	65	58	27	69	58	2	183	25	22	163
20. Laurieston,	216	...	3	3	...	1	...	9	8	12	1	28	9	5	16	19	...	51	6	3	42
21. Hutcheson Square,	1,381	...	7	19	...	24	...	49	28	136	9	125	88	38	120	81	8	321	23	40	265
22. Gorbals,	391	...	3	4	1	2	...	13	9	34	...	37	23	9	30	23	2	101	12	12	76
— Springburn and Rockvilla,	647	...	10	20	...	13	...	21	31	32	4	49	44	18	49	31	6	141	21	24	133
23. Govanhill,	319	...	1	9	...	2	...	7	5	24	1	31	20	16	35	30	...	49	6	17	66
24. Crosshill,	75	..	...	5	...	...	...	1	2	6	...	5	4	6	4	6	1	14	2	1	18
25. Langside and Mount Florida,	134	...	...	...	...	...	...	1	2	5	2	16	9	10	17	15	...	24	3	6	24
26. Pollokshields, E., and Strathbungo,	124	...	3	4	...	...	...	2	1	3	...	9	5	8	13	15	...	22	1	4	34
27. Pollokshields, W., and Bellahouston,	49	...	...	2	...	1	...	1	1	2	...	3	5	2	2	6	...	5	2	...	17
28. Hillhead,	84	...	...	2	...	...	...	...	1	...	...	7	4	7	9	17	...	12	2	...	23
29. Kelvinside,	45	...	...	1	...	1	...	1	...	1	...	1	4	6	3	3	...	6	...	1	17
30. Maryhill,	474	...	11	11	...	2	...	6	16	31	4	39	34	12	31	38	4	98	20	29	88
31. Possilpark and Barnhill,	350	..	5	4	...	1	...	7	10	17	6	28	34	14	34	29	6	66	11	12	66
— Institutions and Shipping,	972	...	2	1	...	5	...	36	2	16	3	149	22	28	85	109	1	185	34	8	286
CITY,	15,350	...	109	205	4	178	1	544	323	932	100	1,383	927	529	1,293	1,203	63	3,395	436	468	3,257

TABLE IIIa.—Glasgow.—Deaths at all ages from different Diseases in each Sanitary District during 1900.

Sanitary Districts.	All Causes.	Smallpox.	Diphtheria and M. Croup.	Scarlet Fever.	Fevers.					Measles.	Whooping-cough.	Diarrhœa.	Septic Diseases.	Tubercular Diseases.		Cancer, Malignant Diseases.	Diseases of Nervous System.	Diseases of Circulatory System.	Croup.	Diseases of Respiratory System.	Violence.	Premature Birth.	Influenza.	All Other Causes.
					Typhus.	Enteric.	Undefined	Anthrax.	Plague.					Phthisis.	Other than Phthisis.									
— Blythswood,	463	1	1	2	...	2	...	1	...	12	24	11	5	44	19	20	35	41	5	90	14	12	15	109
1. Exchange,	458	2	...	4	2	2	...	...	...	5	27	9	1	36	24	14	40	50	2	95	26	20	5	94
2. Port-Dundas,	166	...	1	2	...	2	...	...	...	13	8	4	...	12	7	5	13	11	...	48	3	5	4	28
3. High Street and Closes, W.,	302	...	2	5	2	5	...	...	...	3	14	10	1	27	14	14	36	29	...	66	5	7	1	61
4. St. Rollox,	327	1	...	7	...	4	...	...	...	3	18	6	4	28	29	8	38	26	2	72	5	16	3	57
5. Bellgrove and Dennistoun,	1,492	4	12	28	3	16	...	...	...	51	71	44	13	145	91	41	121	100	5	320	33	48	27	319
6. High Street and Closes, E.,	166	1	1	3	...	2	...	...	...	...	7	5	1	31	6	4	9	14	...	32	10	3	1	36
7. Greenhead and London Road,	1,410	12	8	16	1	12	1	...	...	43	84	103	10	111	102	40	131	74	4	326	40	50	14	228
8. Barrowfield,	709	2	4	10	...	6	...	...	...	23	42	47	2	68	48	14	57	49	2	186	17	20	7	105
9. Monteith Row,	86	1	1	...	...	...	...	...	...	2	4	...	1	12	3	1	2	7	1	20	3	3	2	23
10. St. Andrew's Square,	86	...	1	...	...	1	...	...	...	1	4	2	1	11	6	2	5	5	...	18	5	2	...	22
11. Calton,	553	3	6	2	1	5	...	...	...	9	28	20	3	53	28	11	46	32	1	156	18	11	2	118
12. St. Enoch Square,	54	1	1	...	...	2	...	...	...	...	...	...	...	6	3	1	4	7	...	11	1	2	...	15
13. Brownfield,	142	...	2	3	...	2	...	...	...	6	5	3	1	13	6	2	13	9	...	41	4	3	...	29
14. Bridgegate and Wynds,	123	...	2	4	...	2	...	...	...	4	2	3	1	14	8	2	8	9	1	26	6	...	1	30
15. Woodside,	1,250	1	13	16	...	26	...	...	...	36	69	39	8	100	62	45	99	89	8	277	24	42	22	274
16. Cowcaddens,	573	...	3	1	1	4	...	...	...	24	36	19	...	45	34	11	41	23	1	151	19	14	1	145
17. Kelvinhaugh and Sandyford,	458	...	5	8	...	...	...	...	...	6	12	11	5	34	22	23	60	48	1	93	10	10	9	101
18. Anderston,	689	3	12	6	...	5	...	...	...	36	27	31	2	48	41	20	45	42	...	188	20	29	5	129
19. Kingston,	872	4	11	6	2	11	...	...	3	40	52	20	7	70	40	29	65	60	7	198	36	23	15	173
20. Laurieston,	246	...	2	5	2	...	...	...	1	19	5	14	...	17	20	3	21	17	...	64	9	11	1	35
21. Hutcheson Square,	1,468	2	12	35	2	9	...	...	2	51	68	74	15	118	93	47	92	116	7	359	45	44	15	262
22. Gorbals,	327	...	4	2	...	6	...	...	1	2	12	14	2	36	20	8	25	20	...	95	13	12	5	50
— Springburn and Rockvilla.	662	...	7	10	...	8	...	...	...	19	16	18	8	53	44	23	57	39	8	151	16	23	9	153
23. Govanhill,	361	1	3	10	...	2	...	...	...	8	11	10	4	27	29	16	31	32	2	80	13	12	2	68
24. Crosshill,	89	...	...	5	...	...	...	...	...	2	2	2	1	8	3	5	6	6	4	13	...	3	4	25
25. Langside and Mount Florida,	149	...	1	2	...	1	...	...	...	3	2	1	...	10	9	8	13	25	2	24	7	4	2	35
26. Pollokshields, E., and Strathbungo,	149	...	...	2	...	...	...	...	...	...	1	2	1	11	6	7	13	19	...	18	4	2	8	55
27. Pollokshields, W., and Bellahouston,	65	...	...	1	...	...	...	...	...	...	...	3	2	4	...	5	3	11	1	14	1	1	3	16
28. Hillhead,	112	...	1	...	...	...	...	...	...	...	5	1	...	6	5	9	19	12	...	16	1	...	4	33
29. Kelvinside,	64	...	...	...	...	1	...	...	...	1	1	...	...	5	3	3	5	11	...	9	2	1	2	20
30. Maryhill,	557	1	3	4	...	5	...	...	...	20	21	23	4	38	27	20	45	32	6	135	12	16	8	137
31. Possilpark and Barnhill,	336	...	5	7	...	8	...	...	...	8	11	5	2	24	28	15	21	13	4	80	4	7	7	87
— Institutions and Shipping,	960	1	1	4	1	9	...	...	...	11	5	8	4	153	32	26	73	96	1	216	35	5	2	277
CITY,	15,924	41	125	210	17	158	1	1	7	461	694	562	109	1,418	912	502	1,292	1,174	75	3,688	461	461	206	3,349

TABLE IV.—Glasgow.—Death-rates per Million from different Diseases in each Sanitary District in 1899.

Sanitary Districts.	All Causes.	Smallpox.	Diphtheria and M. Croup.	Scarlet Fever.	Fevers.			Measles.	Whooping-cough.	Diarrhœa.	Septic Diseases.	Tubercular Diseases.		Cancer, Malignant Diseases.	Diseases of Nervous System.	Diseases of Circulatory System.	Croup.	Diseases of Respiratory System.	Violence.	Premature Birth.	All Other Causes.
					Typhus.	Enteric.	Undefined					Phthisis.	Other than Phthisis.								
— Blythswood,	15,231	...	107	213	...	71	...	213	178	463	107	1,423	747	890	1,352	1,744	36	3,345	427	285	3,630
1. Exchange,	17,494	...	45	45	...	134	...	671	224	805	...	1,834	1,387	716	1,298	1,163	45	4,161	626	403	3,937
2. Port-Dundas,	29,090	...	214	...	...	...	...	242	228	2,567	242	1,925	2,994	856	1,497	1,283	...	8,128	1,069	856	6,989
3. High Street and Closes, W.,	29,342	...	...	101	...	304	...	1,619	304	809	304	2,530	1,720	809	2,125	2,833	202	7,588	607	1,518	5,969
4. St. Rollox,	22,897	...	123	430	...	552	...	2,087	1,166	1,105	123	2,394	1,166	737	1,105	1,289	...	4,543	921	491	4,665
5. Bellgrove and Dennistoun,	19,152	...	146	292	...	411	...	702	371	1,272	119	1,564	1,113	742	1,418	1,445	40	4,003	570	610	4,334
6. High Street and Closes, E.,	30,692	...	372	558	...	186	...	930	372	1,302	186	4,092	2,046	744	3,534	3,534	...	4,837	744	930	6,325
7. Greenhead and London Road,	22,202	...	129	307	...	388	...	1,033	565	1,825	194	1,712	1,356	710	1,792	1,792	145	4,457	436	775	4,586
8. Barrowfield,	26,058	...	113	150	...	338	...	1,504	113	2,181	75	1,579	1,316	827	2,219	2,031	150	6,430	790	1,015	5,227
9. Monteith Row,	26,887	...	...	987	...	740	...	493	247	1,480	...	4,440	1,233	247	2,713	2,220	493	5,180	493	247	5,674
10. St. Andrew's Square,	24,499	...	263	...	...	263	...	...	...	2,371	...	4,478	1,317	527	1,844	2,898	263	4,478	527	1,581	3,689
11. Calton,	30,114	...	48	191	48	524	...	1,715	619	1,763	238	2,525	1,811	953	2,621	2,001	95	8,005	715	762	5,480
12. St. Enoch Square,	22,888	...	...	...	...	...	...	337	673	1,346	1,010	2,019	2,356	1,010	1,683	1,010	337	5,722	1,346	673	3,366
13. Brownfield,	26,407	...	290	...	290	290	...	581	...	870	...	2,031	2,031	580	3,192	2,612	...	7,255	1,161	...	5,224
14. Bridgegate and Wynds,	24,879	...	440	...	...	220	...	661	220	661	...	3,963	661	220	3,082	1,321	...	7,045	661	440	5,284
15. Woodside,	17,772	...	128	384	...	114	14	484	413	982	128	1,337	1,096	640	1,622	1,466	57	4,140	555	598	3,614
16. Cowcaddens,	32,485	...	182	546	...	182	...	607	546	1,943	61	2,368	1,518	668	2,672	2,004	...	9,533	668	850	8,137
17. Kelvinhaugh and Sandyford,	13,858	...	253	158	32	63	...	253	316	348	127	1,297	1,234	854	1,424	981	32	2,689	475	348	2,974
18. Anderston,	24,369	...	178	...	...	178	...	1,245	889	1,886	213	1,992	1,494	712	2,170	1,886	71	5,514	925	889	4,127
19. Kingston,	19,477	...	75	200	...	225	...	574	375	1,049	200	1,623	1,448	674	1,723	1,448	50	4,570	624	549	4,070
20. Laurieston,	24,943	...	346	346	...	116	...	1,039	924	1,386	116	3,233	1,039	578	1,848	2,194	...	5,889	693	346	4,850
21. Hutcheson Square,	20,100	...	102	277	...	349	...	713	408	1,994	116	1,819	1,281	553	1,747	1,179	116	4,672	335	582	3,857
22. Gorbals,	31,747	...	244	325	81	162	...	1,056	731	2,761	...	3,004	1,867	731	2,436	1,867	162	8,201	974	974	6,171
— Springburn and Rockvilla,	18,585	...	287	575	...	373	...	603	891	919	115	1,408	1,264	517	1,408	891	172	4,050	603	689	3,820
23. Govanhill,	14,247	...	45	402	...	89	...	313	223	1,072	45	1,384	893	715	1,563	1,340	...	2,188	268	759	2,948
24. Crosshill,	9,964	...	...	664	...	...	...	133	266	797	...	664	531	797	531	797	133	1,860	266	133	2,392
25. Langside and Mount Florida,	9,322	...	...	...	...	...	...	69	139	348	139	1,113	626	696	1,183	1,043	...	1,670	209	417	1,670
26. Pollokshields, E., and Strathbungo,	9,089	...	220	293	...	...	...	147	73	220	...	660	367	586	953	1,099	...	1,613	73	293	2,492
27. Pollokshields, W., and Bellahouston,	8,502	...	...	347	...	173	...	173	173	347	...	521	868	347	347	1,041	...	868	347	...	2,950
28. Hillhead,	9,746	...	...	232	...	...	...	...	116	...	...	812	464	812	1,044	1,973	...	1,392	232	...	2,669
29. Kelvinside,	6,840	...	...	152	...	152	...	152	...	152	...	152	608	912	456	456	...	912	...	152	2,584
30. Maryhill,	14,599	...	339	339	...	62	...	185	493	955	123	1,201	1,047	370	955	1,170	123	3,018	616	893	2,710
31. Possilpark and Barnhill,	18,797	...	268	215	...	54	...	376	537	913	322	1,504	1,826	752	1,826	1,557	322	3,545	591	644	3,545
— Institutions and Shipping,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CITY,	20.543	...	146	274	5	238	1	728	432	1,247	134	1,851	1,241	708	1,731	1,610	84	4,544	584	626	4,359

TABLE IVa.—Glasgow.—Death-rates per Million from Different Diseases in each Sanitary District during 1900.

Sanitary Districts.	All Causes.	Smallpox.	Diphtheria and Membranous Croup.	Scarlet Fever.	Fevers.					Measles.	Whooping-Cough.	Diarrhœa.	Septic Diseases.	Tubercular Diseases.		Cancer, Malignant Diseases	Diseases of Nervous System.	Diseases of Circulatory System.	Croup.	Diseases of Respiratory System.	Violence.	Premature Birth.	Influenza.	All Other Causes.
					Typhus.	Enteric	Undefined	Anthrax.	Plague.					Phthisis.	Otherthan Phthisis.									
— Blythswood, ...	16,757	36	36	72	...	72	...	36	...	434	869	398	181	1,593	688	724	1,267	1,484	181	3,257	507	434	543	3,945
1. Exchange, ...	20,370	89	...	178	89	89	...	...	...	222	1,201	400	45	1,601	1,067	623	1,779	2,224	89	4,225	1,156	890	222	4,181
2. Port-Dundas, ...	30,855	...	186	372	...	372	...	...	...	2,416	1,487	744	...	2,230	1,301	929	2,416	2,045	...	8,922	558	929	744	5,204
3. High Street and Closes, W., ...	30,086	...	199	498	199	498	...	...	...	299	1,395	996	100	2,690	1,395	1,395	3,586	2,889	...	6,575	498	697	100	6,077
4. St. Rollox, ...	20,157	62	...	431	...	247	...	...	...	185	1,110	370	246	1,726	1,788	493	2,342	1,603	123	4,438	308	986	185	3,514
5. Bellgrove and Dennistoun, ...	19,187	52	154	360	39	206	...	...	...	656	913	566	167	1,865	1,170	527	1,556	1,286	64	4,115	425	617	347	4,102
6. High Street and Closes, E., ...	31,203	188	188	564	...	376	...	...	...	...	1,316	940	188	5,827	1,128	752	1,692	2,631	...	6,015	1,879	564	188	6,767
7. Greenhead and London Road, ...	22,487	191	128	255	16	191	16	...	...	686	1,340	1,643	160	1,770	1,627	638	2,089	1,180	64	5,199	638	797	223	3,636
8. Barrowfield, ...	26,194	74	148	369	...	222	...	...	...	850	1,552	1,736	74	2,512	1,773	517	2,106	1,810	74	6,872	628	739	259	3,879
9. Monteith Row, ...	21,761	253	253	...	...	...	...	...	...	506	1,012	...	253	3,037	759	253	506	1,771	253	5,061	759	759	506	5,820
10. St. Andrew's Square, ...	22,537	...	262	...	...	262	...	...	...	262	1,049	524	262	2,883	1,573	524	1,310	1,310	...	4,717	1,310	524	...	5,765
11. Calton, ...	26,711	145	290	97	48	242	...	...	...	435	1,352	966	145	2,560	1,352	531	2,222	1,546	48	7,535	869	531	97	5,700
12. St. Enoch Square, ...	23,266	431	431	...	...	862	...	...	...	...	...	...	...	2,585	1,292	431	1,723	3,016	...	4,739	431	862	...	6,463
13. Brownfield, ...	42,287	...	596	893	...	596	...	...	...	1,787	1,489	893	298	3,871	1,787	596	3,871	2,680	...	12,210	1,191	893	...	8,636
14. Bridgegate and Wynds, ...	30,015	...	488	976	...	488	...	...	...	976	488	732	244	3,417	1,952	488	1,952	2,196	244	6,345	1,464	...	244	7,321
15. Woodside, ...	17,673	14	184	226	...	368	...	...	...	509	976	551	113	1,414	877	636	1,400	1,258	113	3,916	339	594	311	3,874
16. Cowcaddens, ...	33,855	...	177	59	59	236	...	...	...	1,418	2,127	1,123	...	2,659	2,009	650	2,422	1,359	59	8,922	1,123	827	59	8,567
17. Kelvinhaugh and Sandyford, ...	14,760	...	161	258	...	...	...	...	...	193	387	355	161	1,096	709	741	1,934	1,547	32	2,997	322	322	290	3,255
18. Anderston, ...	24,863	108	433	217	...	180	...	...	...	1,299	974	1,119	72	1,732	1,480	722	1,624	1,516	...	6,784	722	1,046	180	4,655
19. Kingston, ...	21,786	100	275	150	50	275	...	...	75	999	1,299	500	175	1,749	999	724	1,624	1,499	175	4,947	899	575	375	4,322
20. Laurieston, ...	29,282	...	238	595	238	...	...	...	119	2,262	595	1,666	...	2,024	2,381	357	2,500	2,024	...	7,618	1,071	1,309	119	4,166
21. Hutcheson Square, ...	21,268	29	174	507	29	130	...	...	29	739	985	1,072	217	1,710	1,347	681	1,333	1,681	101	5,201	652	638	217	3,796
22. Gorbals, ...	26,938	...	329	165	...	494	...	...	82	165	989	1,153	165	2,966	1,648	659	2,059	1,648	...	7,826	1,071	988	412	4,119
— Springburn and Rockvilla, ...	18,441	...	195	278	...	223	...	...	...	529	446	501	223	1,476	1,226	641	1,588	1,086	223	4,206	446	641	251	4,262
23. Govanhill, ...	15,190	42	126	421	...	84	...	...	...	337	463	421	168	1,136	1,220	673	1,305	1,347	84	3,366	547	505	84	2,861
24. Crosshill, ...	10,985	...	...	617	...	...	...	..	...	247	247	247	123	987	370	617	741	741	494	1,604	...	370	494	3,086
25. Langside and Mount Florida, ...	9,627	...	65	129	...	65	...	...	...	194	129	65	...	646	582	517	840	1,615	129	1,551	452	258	129	2,261
26. Pollokshields, E., and Strathbungo,	10,693	...	...	144	...	...	...	...	...	...	72	144	72	789	431	502	933	1,363	...	1,292	287	143	574	3,947
27. Pollokshields, W., and Bellahouston,	10,969	...	...	169	...	...	...	...	...	...	...	506	338	675	...	844	506	1,856	169	2,362	169	169	506	2,700
28. Hillhead, ...	13,112	...	117	...	...	...	...	...	...	...	585	117	...	703	586	1,054	2,224	1,405	...	1,873	117	...	468	3,863
29. Kelvinside, ...	8,731	...	...	...	...	136	...	...	...	136	136	...	...	682	409	409	682	1,501	...	1,228	273	137	273	2,729
30. Maryhill, ...	16,610	30	90	119	...	149	...	...	...	597	626	686	119	1,133	805	596	1,342	954	179	4,026	358	477	239	4,085
31. Possilpark and Barnhill, ...	17,271	...	257	360	...	411	...	...	...	411	565	257	103	1,234	1,439	771	1,079	668	206	4,112	206	360	360	4,472
— Institutions and Shipping, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CITY, ...	21,071	54	165	278	23	209	...	...	...	610	918	744	144	1,876	1,207	664	1,710	1,553	99	4,880	610	610	273	4,432

TABLE V.—Glasgow.—Cases of Infectious Disease Registered in each Sanitary District during the Year 1899, showing the Number Treated in Hospital.

Sanitary Districts.	Infectious Disease (Notification) Act, 1889.																				Other Infectious Diseases.										Total.	
	Fevers.										Smallpox		Scarlet Fever.		Diphtheria.		Membranous Croup.		Erysipelas.		Measles.		Whooping-cough.		Chicken-pox.		Phthisis.		Others.			
	Typhus.		Enteric.		Continued.		Puerperal.		Undefined.																							
	Hos.	Home.	Hos.	Home.	Hos.	Home.	Hos.	Home.	Hos.	Ho.	Hos.	Home.	Hos.	Home.	Hos.	Home.	Hos.	Home.	Hos.	Home.	Hos.	Home.	Hos.	Home.	Hos.	Home.	Hos.	Home.	H.	Ho.	Hos.	Home.
— Blythswood,	...	...	17	4	...	...	1	...	...	...	...	...	134	29	6	9	1	2	11	43	19	107	3	16	5	2	1	21	...	...	198	233
1. Exchange,	...	...	23	4	...	...	...	...	...	...	...	...	64	23	1	5	...	...	15	27	127	313	15	14	8	2	...	10	...	...	253	398
2. Port-Dundas,	...	...	3	...	...	...	...	1	...	...	...	...	10	...	...	1	2	...	2	12	3	45	...	2	...	...	...	1	...	...	20	62
3. High Street and Closes, W.,	1	...	12	1	...	...	2	1	...	...	...	...	34	2	...	1	...	...	9	8	35	121	6	4	...	...	...	2	...	...	99	140
4. St. Rollox,	...	...	47	3	...	...	1	1	...	...	...	...	101	2	3	4	...	1	2	12	53	311	2	17	...	4	...	7	...	...	209	362
5. Bellgrove and Dennistoun,	2	...	194	13	1	..	5	3	...	...	...	...	424	83	28	14	4	3	13	92	103	753	20	31	...	2	...	41	...	...	794	1,035
6. High Street and Closes, E.,	...	...	5	...	...	...	...	...	...	...	...	...	35	2	6	1	...	...	13	11	31	50	...	2	...	...	...	1	...	...	90	67
7. Greenhead and London Road,	...	...	152	7	3	...	11	5	2	...	...	...	311	26	16	8	13	2	8	51	151	679	12	67	...	...	3	28	...	...	682	873
8. Barrowfield,	...	...	56	7	...	...	6	1	...	...	...	...	144	7	11	2	1	...	7	45	110	378	8	21	...	...	...	9	...	...	343	470
9. Monteith Row,	...	...	6	1	...	...	...	...	...	...	...	...	18	6	...	...	1	...	...	11	4	14	...	...	...	...	...	1	...	...	29	33
10. St. Andrew's Square,	...	...	6	...	...	...	...	...	...	...	...	...	24	2	2	2	...	...	3	13	54	16	...	...	...	...	...	2	...	...	89	35
11. Calton,	2	...	43	1	1	...	5	...	...	1	...	...	74	4	5	1	1	1	14	33	111	346	6	14	2	...	1	14	...	...	265	415
12. St. Enoch Square,	...	...	7	1	...	...	1	...	...	...	...	...	7	...	1	1	...	...	4	9	6	10	1	1	...	...	1	3	...	...	28	25
13. Brownfield,	3	...	6	...	...	...	...	...	...	...	...	...	8	...	2	...	...	1	2	9	7	28	2	2	...	1	1	3	...	...	31	44
14. Bridgegate and Wynds,	...	...	6	...	...	...	...	...	...	...	...	...	13	...	1	2	...	1	6	9	8	29	5	...	...	...	...	3	...	...	39	44
15. Woodside,	...	...	38	9	...	...	4	4	...	...	1	...	543	72	17	13	2	...	5	110	59	849	6	62	1	1	...	34	...	2	676	1,156
16. Cowcaddens,	...	...	23	2	...	...	...	...	...	...	...	...	66	7	4	1	...	...	6	37	25	89	4	17	...	...	...	7	...	...	128	160
17. Kelvinhaugh and Sandyford,	1	...	22	9	...	1	...	1	3	...	...	...	106	42	13	15	2	3	16	38	23	347	1	28	...	...	...	15	...	...	187	499
18. Anderston,	5	...	18	2	...	...	...	2	...	...	...	...	110	7	5	8	...	1	6	27	50	404	2	30	2	...	1	29	...	...	199	510
19. Kingston,	...	...	63	10	...	1	3	1	...	...	...	...	155	26	12	6	...	1	5	45	56	309	7	15	2	...	...	25	...	...	303	439
20. Laurieston,	...	...	3	...	1	...	...	1	...	...	...	...	37	3	5	1	...	2	2	19	10	35	3	11	...	...	...	13	...	...	61	85
21. Hutcheson Square,	1	...	96	8	2	...	5	4	...	...	...	...	402	40	29	12	8	3	8	118	83	937	10	54	1	6	...	44	...	...	645	1,226
22. Gorbals,	1	...	21	2	...	...	...	...	...	...	...	...	57	...	3	3	...	1	5	17	19	71	1	14	...	...	...	1	...	...	108	111
— Springburn and Rockvilla,	...	...	53	7	...	...	3	1	...	...	...	...	306	35	10	19	1	...	2	44	42	427	9	43	...	7	...	14	...	1	426	598
23. Govanhill,	...	...	11	2	...	...	...	1	...	...	...	...	128	16	8	7	...	1	3	24	24	286	6	5	...	1	...	16	...	...	180	359
24. Crosshill,	...	...	2	1	...	...	1	...	...	...	...	...	39	23	3	5	...	...	...	4	7	17	...	...	...	...	...	...	...	...	52	52
25. Langside and Mount Florida,	...	...	2	5	...	...	...	...	...	...	...	...	47	52	2	10	...	1	...	11	...	18	1	2	...	...	1	8	...	...	53	107
26. Pollokshields, E., and Strathbungo,	...	...	...	1	...	...	...	...	...	...	...	...	31	34	4	9	...	...	...	10	12	38	...	2	...	...	...	5	...	...	47	99
27. Pollokshields, W., and Bellahouston,	...	...	2	1	...	...	...	...	...	...	...	...	18	26	...	1	...	...	1	7	2	2	...	3	...	...	...	2	1	...	24	42
28. Hillhead,	...	...	...	2	...	...	...	...	...	...	...	...	34	33	...	4	...	...	1	7	1	14	...	1	...	2	...	7	...	...	36	70
29. Kelvinside,	...	...	1	2	...	...	...	...	...	...	...	...	30	25	...	1	...	...	...	1	7	12	...	...	...	1	1	4	...	...	39	46
30. Maryhill,	...	...	18	8	..	...	1	4	1	...	...	...	274	113	9	13	...	3	2	34	15	186	...	147	...	45	3	42	1	...	324	595
31. Possilpark and Barnhill,	...	..	10	1	...	...	2	1	...	...	...	...	180	24	1	14	...	2	3	16	69	397	7	42	2	8	...	7	...	...	274	512
CITY,	16	...	966	114	8	2	51	32	6	1	1	...	3,964	764	207	193	36	29	174	954	1,326	7,638	137	667	23	82	14	423	2	3	6,931	10,902

TABLE Va.—Glasgow.—Cases of Infectious Disease Registered in each Sanitary

Sanitary Districts.	Infectious Disease													
	Fevers.										Smallpox.		Scarlet Fever.	
	Typhus.		Enteric.		Continued.		Puerperal.		Undefined.					
	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.
— Blythswood, ...	...	...	10	5	...	...	...	...	...	...	13	...	89	9
1. Exchange, ...	7	...	28	3	...	...	1	2	...	...	9	...	112	19
2. Port-Dundas, ...	...	...	11	1	...	...	...	...	...	...	...	...	13	2
3. High Street and Closes, W.,... ...	12	...	12	2	...	...	1	...	...	...	...	...	59	2
4. St. Rollox, ...	...	...	28	1	...	...	1	...	...	...	9	...	128	3
5. Bellgrove and Dennistoun, ...	11	...	80	14	...	...	7	3	1	...	55	1	428	84
6. High Street and Closes, E., ...	2	...	10	1	...	...	...	...	...	...	14	...	34	1
7. Greenhead and London Road, ...	6	...	74	6	...	...	8	6	1	...	130	...	264	17
8. Barrowfield, ...	6	...	39	3	...	...	4	...	...	...	31	...	103	5
9. Monteith Row, ...	...	...	3	...	...	...	...	...	...	...	8	1	9	2
10. St. Andrew's Square, ...	1	...	1	...	...	...	...	...	...	...	...	...	7	...
11. Calton, ...	3	...	50	3	...	...	1	...	...	...	31	...	63	2
12. St. Enoch Square, ...	...	...	11	1	...	...	...	...	1	...	1	...	12	1
13. Brownfield, ...	1	...	8	1	...	...	1	...	...	...	3	...	9	1
14. Bridgegate and Wynds, ...	...	...	5	1	...	...	...	...	1	...	3	...	18	1
15. Woodside, ...	...	...	105	30	...	...	2	1	1	...	5	...	316	59
16. Cowcaddens, ...	4	...	24	1	...	...	...	...	...	...	2	...	40	5
17. Kelvinhaugh and Sandyford, ...	...	...	17	12	...	...	...	1	...	...	2	...	97	39
18. Anderston, ...	...	...	27	4	...	...	...	2	2	...	21	...	124	9
19. Kingston, ...	4	...	46	12	...	...	1	2	...	...	18	1	134	31
20. Laurieston.	3	...	7	1	...	...	2	...	...	...	...	...	28	3
21. Hutcheson Square, ...	6	...	61	6	...	...	7	8	...	...	19	...	540	33
22. Gorbals, ...	1	...	20	2	1	...	1	2	1	...	3	...	53	3
— Springburn and Rockvilla, ...	1	...	49	9	...	...	2	2	...	...	7	...	238	26
23. Govanhill, ...	4	...	8	4	...	...	2	3	...	1	4	...	150	28
24. Crosshill, ...	...	...	...	3	...	...	...	1	...	...	...	...	50	23
25. Langside and Mount Florida, ...	...	...	5	1	...	...	...	...	...	...	1	...	44	40
26. Pollokshields, E., and Strathbungo,	...	...	1	3	...	...	...	...	...	...	1	...	39	31
27. Pollokshields, W., and Bellahouston,	...	...	1	3	...	...	...	...	...	...	1	...	7	12
28. Hillhead, ...	...	...	4	1	...	...	...	...	...	...	...	...	12	22
29. Kelvinside, ...	...	...	5	3	...	...	...	...	...	...	...	...	13	20
30. Maryhill, ...	...	...	40	8	...	...	2	1	3	...	1	...	193	41
31. Possilpark and Barnhill, ...	...	...	63	6	...	...	1	...	...	...	2	...	142	20
CITY, ...	72	...	862	151	1	...	44	34	11	1	394	3	3,568	594

DISTRICT DURING THE YEAR 1900, SHOWING NUMBER TREATED IN HOSPITAL.

(NOTIFICATION) ACT, 1899.								OTHER INFECTIOUS DISEASES.										TOTAL.	
Diphtheria.		Membranous Croup.		Erysipelas.		Plague.		Measles.		Whooping-cough.		Chickenpox.		Phthisis.		Anthrax.			
Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.
9	5	...	...	8	22	...	...	41	138	19	64	1	1	3	16	1	...	193	260
9	5	...	...	28	19	...	...	45	81	36	90	16	7	13	10	...	...	314	236
3	1	1	...	2	1	...	...	8	75	7	7	...	...	...	1	...	...	45	88
2	3	1	...	4	6	...	...	17	26	17	16	2	...	5	5	...	...	132	60
7	4	...	...	...	15	...	...	9	61	7	23	...	15	...	6	...	...	189	128
32	24	3	5	12	97	...	...	61	631	19	112	3	3	9	48	1	...	722	1,022
1	...	...	...	11	4	...	...	7	14	11	10	2	1	16	7	...	...	108	38
32	6	7	1	18	57	2	...	84	518	41	125	2	18	5	31	...	...	674	785
10	2	4	2	4	27	...	...	35	167	39	66	3	4	7	12	...	...	285	288
1	...	...	...	2	10	...	...	8	5	3	5	1	...	...	5	...	...	35	28
3	1	1	...	5	8	...	...	11	9	15	2	11	...	2	2	...	...	57	22
6	1	4	...	5	33	1	...	21	83	43	44	2	2	25	13	...	...	255	181
...	...	...	...	1	1	...	...	1	2	5	...	...	...	7	2	...	...	39	7
3	...	...	1	...	9	...	...	10	37	5	14	...	...	7	5	...	...	47	68
1	...	...	1	...	8	...	...	3	13	13	3	...	...	4	3	...	...	48	30
27	19	3	5	9	82	...	...	39	489	13	199	...	1	2	33	...	...	522	918
5	...	3	1	6	26	...	...	29	163	22	73	1	2	5	16	...	...	141	287
10	12	3	...	11	34	...	...	19	114	4	40	1	5	2	18	...	...	166	275
11	9	...	1	7	34	...	...	39	270	15	35	1	4	10	32	...	...	257	400
11	9	2	2	16	52	9	...	48	503	14	82	2	3	3	28	...	...	308	725
1	2	...	...	3	11	4	...	18	84	1	9	...	1	1	5	...	...	68	116
41	4	5	4	12	90	5	...	77	787	33	123	7	11	2	41	...	...	815	1,107
2	3	...	1	3	18	6	...	12	41	23	11	2	...	3	4	...	...	131	85
12	17	1	2	7	43	...	...	15	377	2	28	...	7	1	15	...	...	335	526
9	9	...	1	...	16	...	...	20	203	4	57	..	3	1	19	...	...	202	344
...	4	...	...	...	8	...	...	5	37	4	4	...	5	...	10	...	...	59	95
1	19	...	...	2	10	...	...	15	149	...	2	...	...	...	7	...	...	68	228
1	4	...	...	...	11	...	...	7	89	...	1	...	...	...	6	...	...	49	145
2	4	...	...	1	9	...	...	...	2	...	...	...	...	1	2	...	...	13	32
2	1	...	...	1	8	...	...	5	13	1	6	...	...	...	5	...	...	25	56
2	5	...	...	5	3	...	...	5	19	...	6	...	...	...	1	...	...	30	57
21	9	...	1	5	30	...	...	23	494	1	232	...	50	2	16	...	...	291	882
6	9	...	...	2	28	...	...	18	157	4	62	3	1	1	16	1	...	243	299
283	191	38	28	190	830	27	...	755	5,851	421	1,551	60	144	137	440	3	...	6,866	9,818

TABLE VI.—Glasgow.—Cases of Infectious Disease Registered in each Month of the Year 1899, showing the Number Treated in Hospital.

Month.	Infectious Disease (Notification) Act, 1889.																				Other Infectious Diseases.										Total.	
	Fevers.										Smallpox.		Scarlet Fever.		Diphtheria.		Membranous Croup.		Erysipelas.		Measles.		Whooping-cough.		Chicken-pox.		Phthisis.		Others.			
	Typhus.		Enteric.		Continued.		Puerperal.		Undefined.																							
	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.
January.	...	...	75	8	...	1	5	2	...	1	...	...	330	69	20	31	3	4	25	85	33	205	20	193	...	20	1	45	...	...	512	664
February,	1	...	74	5	2	...	7	1	...	...	...	...	266	104	18	8	6	1	15	62	46	266	13	113	4	3	3	33	1	2	456	598
March,	4	...	56	6	...	...	8	3	2	...	...	...	236	63	17	10	2	3	17	90	106	532	11	78	1	12	2	51	1	1	463	849
April,	3	...	64	9	...	1	7	3	2	...	...	...	245	48	18	11	1	4	14	79	143	695	7	45	2	12	1	36	...	...	507	943
May,	1	...	44	5	...	...	3	6	...	...	...	...	274	54	8	15	3	4	16	69	197	1,079	10	28	5	6	2	46	...	...	563	1,312
June,	6	...	36	7	...	...	2	2	...	...	1	...	267	66	14	8	4	3	11	62	179	1,152	10	21	6	8	1	34	...	...	537	1,363
July,	1	...	77	3	...	...	2	1	...	...	...	...	235	33	10	14	...	2	13	59	162	570	15	18	...	2	...	32	...	...	515	734
August,	...	...	122	11	...	...	4	5	...	...	...	...	369	43	13	22	2	...	11	77	81	449	16	36	...	...	1	41	...	...	619	684
September,	...	...	161	21	...	...	4	1	2	...	...	...	453	70	13	15	2	2	12	80	51	232	15	32	...	1	2	35	...	...	715	489
October,	...	...	106	15	4	...	2	3	...	...	...	...	536	87	20	16	5	1	11	106	107	583	3	17	1	5	1	25	...	...	796	858
November,	...	...	93	10	2	...	3	3	...	...	...	...	432	65	33	21	4	2	16	99	104	991	9	29	2	4	...	27	...	...	698	1,251
December,	...	...	58	14	...	...	4	2	...	...	...	...	321	62	23	22	4	3	13	86	117	884	8	57	2	9	...	18	...	...	550	1,157
Year,	16	...	966	114	8	2	51	32	6	1	1	...	3,964	764	207	193	36	29	174	954	1,326	7,638	137	667	23	82	14	423	2	3	6,931	10,902

TABLE VIa.—Glasgow.—Cases of Infectious Disease Registered in each Month of the Year 1900, showing the Number Treated in Hospital.

Month.	Infectious Disease (Notification) Act, 1889.																				Other Infectious Diseases.										Total.	
	Fevers.										Smallpox.		Scarlet Fever.		Diphtheria.		Membranous Croup.		Erysipelas.		Plague.		Measles.		Whooping-cough.		Chickenpox.		Phthisis.		Anthrax.			
	Typhus.		Enteric.		Continued.		Puerperal.		Undefined.																								
	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hospital.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hospital.	Home.
January,	...	...	66	8	...	...	5	2	...	...	...	...	283	62	20	22	5	6	15	84	...	...	111	1,141	10	85	2	11	1	29	...	...	518	1,450
February,	1	...	56	13	...	...	6	6	2	...	...	...	289	55	20	15	3	4	10	58	...	...	60	736	11	106	1	15	10	39	...	...	469	1,047
March,	1	...	42	5	...	...	3	3	1	...	...	...	228	61	26	21	2	4	11	71	...	...	68	725	19	87	...	1	20	54	...	...	421	1,032
April,	8	...	29	5	...	...	4	3	...	...	22	...	229	52	24	14	3	1	8	63	...	...	107	599	36	104	1	5	6	53	...	...	477	899
May,	5	...	37	11	...	...	5	3	...	...	44	...	284	42	23	19	3	3	15	48	...	...	126	652	58	143	3	14	13	41	...	...	616	976
June,	...	...	61	13	...	...	4	2	...	...	104	1	236	40	13	6	1	2	11	65	...	...	97	831	47	112	5	21	21	29	...	...	600	1,122
July,	2	...	98	16	...	...	3	...	1	1	44	1	233	24	21	4	1	1	14	69	...	...	104	442	34	91	10	7	7	32	...	...	572	688
August,	1	...	94	12	...	...	1	4	1	...	24	...	321	33	14	10	...	1	12	67	12	...	37	278	30	190	4	17	5	24	...	...	556	636
September,	2	...	121	18	...	...	2	2	...	...	21	...	351	42	33	13	3	1	18	63	15	...	14	99	33	150	4	10	16	32	1	...	634	430
October,	5	...	104	21	1	...	6	4	...	...	32	...	489	72	33	20	6	2	27	95	...	...	3	96	47	104	8	19	14	30	2	...	777	463
November,	18	...	79	20	...	...	2	3	4	...	28	1	338	58	27	19	10	2	29	66	...	...	9	141	43	147	4	13	11	37	...	...	602	507
December,	29	...	75	9	...	...	3	2	2	...	75	...	287	53	29	28	1	1	20	81	...	...	19	111	53	232	18	11	13	40	...	...	624	568
Year,	72	...	862	151	1	...	44	34	11	1	394	3	3,568	594	283	191	38	28	190	830	27	...	755	5,851	421	1,551	60	144	137	440	3	...	6,866	9,818

TABLE VII.—Glasgow.—Deaths Certified and otherwise in each Sanitary District during 1899.

Sanitary Districts.	Deaths Certified and otherwise.								Deaths under 5 years.				Legitimate.				Illegitimate.			
	Certified.		Not Certified.		No Medical Attendance.		Dispensary.		Under 1 year.		1 and under 5 years.		Under 1 year.		1 and under 5 years.		Under 1 year.		1 and under 5 years.	
	Under 5 yrs.	5 yrs. & up.	Under 5 yrs.	5 yrs. & up.	Under 5 yrs.	5 yrs. & up.	Under 5 yrs.	5 yrs. & up.	Number.	Certified.	Number.	Certified.	Number.	Certified.	Number.	Certified.	Number.	Certified.	Number.	Certified.
Blythswood, ...	107	311	2	1	3	3	1	...	63	57	50	50	50	46	48	48	13	11	2	2
1. Exchange, ...	135	241	...	5	5	3	2	...	89	83	53	52	74	70	47	47	15	13	6	5
2. Port-Dundas, ...	65	63	3	2	3	...	...	...	45	40	26	25	29	26	24	23	16	14	2	2
3. High Street and Closes, W.,	99	178	1	1	7	4	...	...	65	59	40	40	50	46	37	37	15	13	5	3
4. St. Rollox, ...	166	198	1	5	1	1	...	1	88	86	80	80	78	76	76	76	10	10	4	4
5. Bellgrove and Dennistoun,	572	838	7	7	17	3	1	...	343	322	254	250	313	298	241	237	30	24	13	13
6. High Street and Closes, E.,	57	91	1	...	5	9	1	1	41	36	23	21	34	30	20	19	7	6	3	2
7. Greenhead and London Road,	626	717	5	8	12	4	2	1	377	363	268	263	344	332	257	253	33	31	11	10
8. Barrowfield, ...	282	380	4	3	19	4	1	...	174	151	132	131	152	134	126	125	22	17	6	6
9. Monteith Row, ...	31	73	2	...	1	1	1	...	18	16	17	15	15	13	15	13	3	3	2	2
10. St. Andrew's Square, ...	231	361	...	...	...	1	...	...	22	22	9	9	18	18	6	6	4	4	3	3
11. Calton, ...	249	352	4	5	17	5	...	...	142	124	128	125	115	102	114	113	27	22	14	12
12. St. Enoch Square, ...	22	42	..	1	...	1	2	...	16	15	8	7	11	11	8	7	5	4	...	...
13. Brownfield, ...	34	54	...	...	...	1	2	...	23	22	13	12	17	17	12	11	6	5	1	1
14. Bridgegate and Wynds, ..	31	74	...	...	3	4	1	...	21	18	14	13	14	13	11	11	7	5	3	2
15. Woodside, ...	493	728	1	1	18	6	2	..	325	307	189	186	296	280	180	178	29	27	9	8
16. Cowcaddens, ...	228	271	...	2	19	7	8	...	160	137	95	91	134	114	88	86	26	23	7	5
17. Kelvinhaugh and Sandyford,	140	292	1	1	1	2	1	...	77	74	66	66	73	71	64	64	4	3	2	2
18. Anderston, ...	322	351	...	1	9	1	1	...	202	192	130	130	183	175	128	128	19	17	2	2
19. Kingston, ...	289	478	3	3	3	1	3	...	184	178	114	111	171	167	109	107	13	11	5	4
20. Laurieston, ...	91	123	...	...	1	...	1	...	58	56	35	35	53	51	33	33	5	5	2	2
21. Hutcheson Square, ...	613	740	5	6	15	1	1	...	396	379	238	234	357	345	226	223	39	34	12	11
22. Gorbals, ...	162	212	1	1	10	1	4	...	106	93	71	69	92	83	67	65	14	10	4	4
— Springburn and Rockvilla,	316	321	3	1	5	1	...	...	179	173	145	143	160	155	141	139	19	18	4	4
23. Govanhill, ...	129	184	1	4	...	1	...	...	92	91	38	38	87	86	36	36	5	5	2	2
24. Crosshill, ...	19	56	...	...	...	...	...	...	13	13	6	6	13	13	6	6	...	...	...	...
25. Langside and Mount Florida,	33	99	1	1	...	...	...	...	27	26	7	7	27	26	7	7	...	...	...	...
26. P'kshields, E., and Str'bungo,	24	99	...	1	...	...	...	...	16	16	8	8	16	16	8	8	...	...	...	...
27. P'kshields, W., and Bellah'ston	10	37	1	1	...	...	...	...	2	1	9	9	2	1	9	9	...	...	...	...
28. Hillhead, ...	7	76	...	...	...	1	...	...	5	5	2	2	5	5	2	2	...	...	...	...
29. Kelvinside, ...	6	38	...	...	...	1	...	...	4	4	2	2	4	4	2	2	...	...	...	...
30. Maryhill, ...	227	231	4	6	6	...	...	...	151	143	86	84	141	135	80	79	10	8	6	5
31. Possilpark and Barnhill, ...	155	189	2	1	3	...	...	...	98	93	62	62	88	85	61	61	10	8	1	1
— Institutions and Harbour,	117	832	...	5	...	18	...	...	64	64	53	53	30	30	41	41	34	34	12	12
CITY, ...	5,888	9,030	53	73	183	85	35	3	3,686	3,459	3,686	3,459	3,246	3,074	2,330	2,300	440	385	143	129

TABLE VIIa.—Glasgow.—Deaths Certified and otherwise in each Sanitary District during 1900.

SANITARY DISTRICTS	DEATHS CERTIFIED AND OTHERWISE.								DEATHS UNDER 5 YEARS.				LEGITIMATE.				ILLEGITIMATE.			
	Certified.		Not Certified.		No Medical Attendance.		Dispensary.		Under 1 year.		1 and under 5 years.		Under 1 year.		1 and under 5 years.		Under 1 year.		1 and under 5 years.	
	Under 5 yrs.	5 yrs. & up.	Under 5 yrs.	5 yrs. & up.	Under 5 yrs.	5 yrs. & up.	Under 5 yrs.	5 yrs. & up.	Number.	Certified.	Number.	Certified.	Number.	Certified.	Number.	Certified.	Number.	Certified.	Number.	Certified.
— Blythswood, ...	139	312	...	2	7	1	2	...	78	69	70	70	65	58	69	69	13	11	1	1
1. Exchange, ...	155	282	2	3	7	7	1	1	100	94	65	61	81	76	61	57	19	18	4	4
2. Port-Dundas, ...	69	93	...	...	2	1	1	...	43	40	29	29	36	34	24	24	7	6	5	5
3. High Street and Closes, W.,	100	189	4	2	2	4	1	...	66	64	41	36	54	52	36	32	12	12	5	4
4. St. Rollox, ...	136	186	...	2	2	1	...	...	81	80	57	56	73	72	52	51	8	8	5	5
5. Bellgrove and Dennistoun,	661	794	9	3	15	6	4	...	416	391	273	270	383	361	252	249	33	30	21	21
6. High Street and Closes, E.,	50	101	3	1	5	5	1	...	38	29	21	21	28	26	17	17	10	3	4	4
7. Greenhead and London Road,	689	692	3	3	15	2	6	...	396	378	317	311	350	335	307	302	46	43	10	9
8. Barrowfield, ...	344	342	4	4	10	3	1	1	200	190	159	154	183	174	148	143	17	16	11	11
9. Monteith Row, ...	21	60	2	1	1	1	...	...	16	13	8	8	13	10	8	8	3	3	...	...
10. St. Andrew's Square, ...	28	52	2	...	3	...	1	...	20	16	14	12	16	14	12	10	4	2	2	2
11. Calton, ...	212	308	7	4	15	7	...	...	131	113	103	99	108	93	94	91	23	20	9	8
12. St. Enoch Square, ...	11	37	...	2	2	2	...	...	8	6	5	5	6	5	5	5	2	1	...	...
13. Brownfield, ...	63	73	1	...	4	1	...	...	40	35	28	28	36	31	26	26	4	4	2	2
14. Bridgegate and Wynds, ...	34	77	1	...	6	4	1	...	24	17	18	17	19	15	16	16	5	2	2	1
15. Woodside, ...	474	755	2	2	14	1	2	...	293	276	199	198	252	237	188	187	41	39	10	10
16. Cowcaddens, ...	275	265	...	4	12	7	8	2	155	138	140	137	139	124	129	126	16	14	12	12
17. Kelvinhaugh and Sandyford,	133	318	1	3	2	1	...	...	82	79	54	54	74	71	54	54	8	8	...	...
18. Anderston, ...	338	338	...	...	9	2	2	...	186	176	163	162	174	166	158	157	12	10	5	5
19. Kingston, ...	341	514	5	2	4	...	6	...	191	180	165	161	173	162	159	155	18	18	6	6
20. Laurieston, ...	112	128	...	1	2	...	3	...	60	57	57	55	55	53	56	54	5	4	1	1
21. Hutcheson Square, ...	645	795	3	9	15	...	1	...	365	347	299	298	326	313	286	285	39	34	13	13
22. Gorbals, ...	133	185	2	4	3	...	...	...	81	77	57	56	72	69	49	48	9	8	8	8
— Springburn and Rockvilla,	273	374	3	6	3	1	2	...	166	161	115	112	150	147	111	108	16	14	4	4
23. Govanhill, ...	149	211	...	...	...	...	1	...	96	95	54	54	86	85	53	53	10	10	1	1
24. Crosshill, ...	23	65	...	1	...	...	...	...	15	15	8	8	13	13	7	7	2	2	1	1
25. Langside and Mount Florida,	35	112	...	1	1	...	...	...	29	28	7	7	27	26	7	7	2	2	...	...
26. P'kshields, E., and Str'bungo,	22	125	...	2	...	...	...	...	16	16	6	6	16	16	6	6	...	...	...	...
27. P'kshields, W., and Bellah'ston	9	54	...	2	...	...	...	...	6	6	3	3	6	6	3	3	...	...	...	...
28. Hillhead, ...	13	98	...	...	...	1	...	...	8	8	5	5	8	8	5	5	...	...	...	...
29. Kelvinside, ...	13	51	...	...	...	...	...	...	12	12	1	1	12	12	1	1	...	...	...	...
30. Maryhill.	255	284	5	7	2	4	...	...	174	169	88	86	162	157	84	82	12	12	4	4
31. Possilpark and Barnhill, ..	159	171	4	2	...	...	...	...	90	86	73	73	82	78	71	71	8	8	2	2
— Institutions and Harbour,	103	828	...	9	...	20	...	...	51	51	52	52	23	23	37	37	28	28	15	15
CITY, ...	6,217	9,269	63	82	163	82	44	4	3,733	3,512	2,754	2,705	3,301	3,122	2,591	2,546	432	390	163	159

TABLE VIII.—Glasgow.—Deaths in Friendly Societies in each Sanitary District in 1899.[1]

Sanitary Districts.	Under 1 Year.		1 and under 5 Years.		5 Years and over.	All Ages.
	Legitimate.	Illegitimate.	Legitimate.	Illegitimate.		
— Blythswood, ...	17	...	27	2	161	207
1. Exchange, ...	40	1	39	1	160	241
2. Port-Dundas, ...	15	1	22	1	47	86
3. High Street and Closes, W., ...	17	1	22	...	124	164
4. St. Rollox, ...	42	...	65	2	168	277
5. Bellgrove and Dennistoun, ...	124	6	188	5	650	973
6. High Street and Closes, E., ...	15	2	12	...	53	82
7. Greenhead and London Road, ...	179	5	212	6	603	1,005
8. Barrowfield, ...	82	2	111	4	320	519
9. Monteith Row, ...	6	...	10	...	53	69
10. St. Andrew's Square, ...	7	...	4	...	43	54
11. Calton, ...	47	6	79	7	270	409
12. St. Enoch Square, ...	4	...	3	1	30	38
13. Brownfield, ...	6	...	6	...	36	48
14. Bridgegate and Wynds, ...	3	1	8	...	47	59
15. Woodside, ...	118	1	130	6	424	679
16. Cowcaddens, ...	60	...	65	3	152	280
17. Kelvinhaugh and Sandyford, ...	27	...	45	1	166	239
18. Anderston, ...	67	2	98	2	270	439
19. Kingston, ...	63	3	82	...	327	475
20. Laurieston, ...	25	1	20	2	86	134
21. Hutcheson Square, ...	169	6	179	4	555	913
22. Gorbals, ...	34	...	38	2	151	225
— Springburn and Rockvilla, ...	81	2	114	2	283	482
23. Govanhill, ...	29	2	32	2	112	177
24. Crosshill, ...	5	...	...	...	11	16
25. Langside and Mount Florida, ...	3	...	3	...	10	16
26. Pollokshields, E., and Strathbungo,	1	...	2	...	22	25
27. Pollokshields, W., and Bellahouston,	...	...	4	...	9	13
28. Hillhead, ...	...	...	...	...	2	2
29. Kelvinside, ...	1	...	...	...	2	3
30. Maryhill, ...	48	...	51	1	150	250
31. Possilpark and Barnhill, ...	36	1	46	1	150	234
— Institutions and Harbour, ...	4	...	9	...	264	277
CITY, ...	1,375	43	1,726	55	5,911	9,110

[1] For the total Deaths under the various heads in this Table see Table VII. (Appendix).

TABLE VIIIa.—Glasgow.—Deaths in Friendly Societies in each Sanitary District in 1900.[1]

Sanitary Districts.	Under 1 Year.		1 and under 5 Years.		5 Years and over.	All Ages.
	Legitimate.	Illegitimate.	Legitimate.	Illegitimate.		
— Blythswood, ...	24	2	48	1	177	252
1. Exchange, ...	32	...	42	2	202	278
2. Port-Dundas, ...	21	3	20	1	70	115
3. High Street and Closes, W., ...	24	2	21	...	135	182
4. St. Rollox, ...	29	...	46	1	159	235
5. Bellgrove and Dennistoun, ...	162	5	192	9	652	1,020
6. High Street and Closes, E., ...	11	...	10	...	69	90
7. Greenhead and London Road, ...	168	3	267	3	598	1,039
8. Barrowfield, ...	100	1	115	3	277	496
9. Monteith Row, ...	3	2	5	...	40	50
10. St. Andrew's Square, ...	4	1	7	...	33	45
11. Calton, ...	52	4	70	3	229	358
12. St. Enoch Square, ...	2	...	3	...	20	25
13. Brownfield, ...	15	...	13	...	48	76
14. Bridgegate and Wynds, ...	8	1	8	...	51	68
15. Woodside, ...	115	3	151	3	451	723
16. Cowcaddens, ...	53	...	94	4	141	292
17. Kelvinhaugh and Sandyford, ...	20	1	38	...	185	244
18. Anderston, ...	60	1	107	4	257	429
19. Kingston, ...	67	2	116	3	365	553
20. Laurieston, ...	18	...	43	...	82	143
21. Hutcheson Square, ...	150	9	231	5	640	1,035
22. Gorbals, ...	24	1	33	1	127	186
— Springburn and Rockvilla, ...	65	1	92	2	331	491
23. Govanhill, ...	45	2	39	...	154	240
24. Crosshill, ...	3	...	5	1	15	24
25. Langside and Mount Florida, ...	7	...	...	...	18	25
26. Pollokshields, E., and Strathbungo,	3	...	1	...	28	32
27. Pollokshields, W., and Bellahouston,	...	...	...	...	10	10
28. Hillhead, ...	...	...	...	...	6	6
29. Kelvinside, ...	1	...	...	...	2	3
30. Maryhill, ...	63	...	54	1	198	316
31. Possilpark and Barnhill, ...	40	4	52	1	134	231
— Institutions and Harbour, ...	3	...	7	1	271	282
CITY, ...	1,392	48	1,930	49	6,175	9,594

[1] For the total Deaths under the various heads in this Table see Table VIIa. (Appendix).

TABLE IX.—Showing Hospital Bed Accommodation for Infectious Diseases in Glasgow since 1865.

Year.	Parish.			Glasgow Royal Infirmary.	Local Authority.				Total Beds.	Population in Thousands.	Beds per Thousand.
	City.	Barony.	Govan.		Parliamentary Road.	Belvidere Fever.	Belvidere Small-pox.	Ruchill.			
1865	100	120	54	200	136	...	...	...	610	428	1·4
1866	100	120	54	175	136	...	...	...	585	438	1·3
1867	...	120	54	100	136	...	...	...	410	446	0·9
1869	...	120	54	135	136	...	...	...	445	464	1·0
1870	...	120	54	100	250	250	...	...	774	471	1·7
1872	...	120	...	100	250	250	...	...	720	495	1·4
1875	...	...	...	100	250	250	...	...	600	500	1·2
1876	...	...	...	...	250	250	...	...	500	502	1·0
1878	...	...	...	...	120	250	150	...	520	507	1·0
1880	...	...	...	...	120	250	150	...	520	510	1·0
1881	...	...	...	...	120	370	150	...	640	512	1·2
1882	...	...	...	...	120	220	150	...	490	518	1·0
1887	...	...	...	...	120	390	150	...	660	545	1·2
1893	...	...	...	...	200	390	150	...	740	644	1·1
1900	...	...	...	...	200	390	150	440	1,180	755	1·6

TABLE X.—Number, Average Residence, and Cost of Treatment of Patients in City of Glasgow Fever and Smallpox Hospitals during Year ending 31st May, 1900.

Ordinary Expenditure, as per Treasurer's Statement :—*

Fever Hospital, Belvidere, ...	£31,221 8 5	
Smallpox Hospital, Belvidere, ...	1,264 13 9	
Fever Hospital, Parliamentary Road, ...	9,534 7 9	£42,020 9 11

* The Ordinary Expenditure on all the Hospitals has been thrown together. There is a certain amount of community in the Expenditure which could not be unravelled without trouble quite out of proportion to any result.

Average daily number of Patients in Fever Hospital, Belvidere, ...	638
Average daily number of Patients in Smallpox Hospital, Belvidere, ...	8
Average daily number of Patients in Fever Hospital, Parliamentary Road, ...	277
Average daily number of Patients in Hospitals, ...	923

	Belvidere Fever Hospital.	Belvidere Smallpox Hospital.	Parliamentary Road Hospital.	Total.
Patients remaining at 31st May, 1899, ...	596	9	247	852
Patients admitted during 1899-1900, ...	4,836	96	1,731	6,663
Total under Treatment, 1899-1900,†				7,515
Average Residence, ...			44·8 days.	
Average Daily Expenditure, ...				£115 2 5·92
Average Daily Cost per Patient, ...				0 2 5·94
Average Cost of Treatment per Patient, ...				5 11 9·97
Average Cost of Bed per Year, ...				45 10 8·22

† In addition to this number, 400 Patients (24 remaining at 31st May, 1899, and 376 admitted during year) were treated in the Joint-Hospital, Knightswood, the Glasgow Share in the Ordinary Expenditure of which was £2,145 13s. 6d.

STATEMENT SHOWING PATIENTS CLASSIFIED AS TO DISEASE, AVERAGE RESIDENCE IN EACH CASE SO FAR AS DISMISSED UP TO 11th JULY, 1900, AND AVERAGE COST AT THE DAILY RATE GIVEN ABOVE—

Disease.	No. Admitted.	Average Residence.	Average Cost.
Scarlet Fever, ...	3,640	59·3 days.	£7 7 11·44
Enteric Fever, ...	834	55·7 ,,	6 18 11·66
Whooping-Cough, ...	224	54·4 ,,	6 15 8·74
Typhus Fever, ...	22	33·4 ,,	4 3 4·00
Measles, ...	1,202	27·8 ,,	3 9 5·33
Other Infectious Diseases,*	396	34·9 ,,	4 7 0·91
Smallpox, ...	70	22·6 ,,	2 16 4·64
All other Diseases,†	275	28·6 ,,	3 11 4·28
All Cases, ...	6,663		

* Includes Erysipelas, Diphtheria, Chickenpox, and Puerperal Fever.
† Includes 56 Nursing Mothers, besides Persons sent in by mistaken diagnosis.

The above calculations of cost do not include Interest on Capital expended in erecting Hospitals.

A. K. CHALMERS.

Sanitary Department,
Glasgow, *14th July, 1900.*